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June 14, 1999

Assistant Commissioner for Patents  
Washington, D.C. 20231

**Box Patent Application**

Re: U.S. Non-Provisional Utility Patent Application  
Application No.: To Be Assigned  
Filed: Herewith  
For: **Nucleic Acid Molecules and Other Molecules  
Associated with Plants**  
Inventors: Timothy W. CONNER *et al.*  
Atty. Docket: 38-21(15404)B

Sir:

The following documents are forwarded herewith for appropriate action by the U.S.  
Patent and Trademark Office:

1. Utility Patent Application Transmittal (PTO/SB/05);
2. Form PTO-1082 (in duplicate);
3. U.S. Utility Patent Application entitled:

**Nucleic Acid Molecules and Other Molecules Associated with Plants**

and naming as inventors:

**Timothy W. CONNER and Yijun G. RUAN**

the application consisting of:

- a. A specification containing:
  - (i) 89 pages of a description prior to the claims;
  - (ii) 2 pages of claims (7 claims);
  - (iii) a one (1) page abstract; and
  - (iv) 9,015 pages of a sequence listing;



June 14, 1999

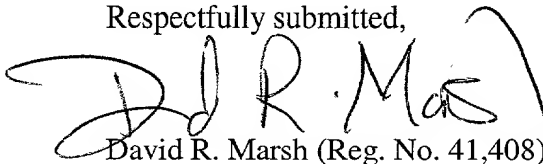
Page 2

4. A CD-ROM containing the sequence listing;
5. Statement Regarding Sequence Submission;
6. Information Disclosure Statement;
7. Form PTO-1449 (3 pages), with 8 accompanying documents;
8. Facsimile copy of original Combined Declaration and Power of Attorney for Patent Application, executed by Timothy W. Conner;
9. Facsimile copy of original Combined Declaration and Power of Attorney for Patent Application, executed by Yijun G. Ruan;
10. Howrey & Simon Check No. 311677 in the amount of \$760.00 to cover the basic filing fee; and
11. Two (2) return postcards.

It is respectfully requested that, of the two attached postcards, one be stamped with the filing date of these documents and returned to our courier, and the other, prepaid postcard, be stamped with the filing date and unofficial application number and returned as soon as possible.

In accordance with 37 C.F.R. § 1.821(f), the paper copy of the sequence listing and the computer readable copy of the sequence listing submitted herewith in the above application are the same.

Respectfully submitted,



David R. Marsh (Reg. No. 41,408)

Enclosures

June 14, 1999

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PTO/SB/05 (2/98)

Approved for use through 09/30/00. OMB 0651-0032

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<b>UTILITY PATENT APPLICATION TRANSMITTAL</b> <i>(Only for new nonprovisional applications under 37 CFR 1.53(b))</i>	Attorney Docket No. 38-21(15404)B	
	First Named Inventor or Application Identifier CONNER	
	Title	Nucleic Acid Molecules and Other Molecules Associated with Plants
	Express Mail Label No.	

<b>APPLICATION ELEMENTS</b> <i>See MPEP chapter 600 concerning utility patent application contents</i>	<b>ADDRESS TO:</b> Assistant Commissioner for Patents Box Patent Application Washington, DC 20231
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|---|---|
| 1. <input checked="" type="checkbox"/> *Fee Transmittal Form (Form PTO-1082)<br><i>(Submit an original and a duplicate for fee processing)</i>  | 6. <input type="checkbox"/> Microfiche Computer Program <i>(Appendix)</i>   |
| 2. <input checked="" type="checkbox"/> Specification [Total Pages 92]<br><i>(preferred arrangement set forth below)</i> <ul style="list-style-type: none"><li>- Descriptive title of the Invention</li><li>- Cross References to Related Applications</li><li>- Statement Regarding Fed sponsored R&amp;D</li><li>- Reference to Microfiche Appendix</li><li>- Background of the Invention</li><li>- Brief Summary of the Invention</li><li>- Brief Description of the Drawings (if filed)</li><li>- Detailed Description</li><li>- Claims</li><li>- Abstract of the Disclosure</li></ul> <input type="checkbox"/> Drawing(s) (35 USC 113) [Total Sheets ]<br>Oath or Declaration [Total Pages 6] | 7. Nucleotide and/or Amino Acid Sequence Submission<br><i>(if applicable, all necessary)</i> <ul style="list-style-type: none"><li>a. <input checked="" type="checkbox"/> Computer Readable Copy</li><li>b. <input checked="" type="checkbox"/> Paper Copy (identical to computer copy)</li><li>c. <input checked="" type="checkbox"/> Statement verifying identity of above copies</li></ul> |

<b>ACCOMPANYING APPLICATION PARTS</b>	
8. <input type="checkbox"/> Assignment Papers (cover sheet & document(s))	
9. <input type="checkbox"/> 37 CFR 3.73(b) Statement <input type="checkbox"/> Power of Attorney <i>(when there is an assignee)</i>	
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11. <input checked="" type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449	<input checked="" type="checkbox"/> Copies of IDS Citations
12. <input type="checkbox"/> Preliminary Amendment	
13. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) (Two) <i>(should be specifically itemized)</i>	
14. <input type="checkbox"/> *Small Entity Statement(s)	<input type="checkbox"/> Statement filed in prior application, Status still proper and desired
15. <input type="checkbox"/> Certified Copy of Priority Document(s) <i>(if foreign priority is claimed)</i>	
16. <input type="checkbox"/> Other:	

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17. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:
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| Prior Application Information: Examiner: |                                     |   | Group/Art Unit:            |

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*David R. Marsh 41,408*

# NUCLEIC ACID MOLECULES AND OTHER MOLECULES ASSOCIATED WITH PLANTS

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## Field of the Invention

The present invention is in the field of plant biochemistry. More specifically the invention relates to nucleic acid molecules that encode proteins and fragments of proteins produced in plant cells, in particular, *Arabidopsis thaliana* plants. The invention also relates to proteins and fragments of proteins so encoded and antibodies capable of binding the proteins. The invention also relates to methods of using the nucleic acid molecules, proteins and fragments of proteins.

## Background of the Invention

### I. EXPRESSED SEQUENCE TAG NUCLEIC ACID MOLECULES

Expressed sequence tags, or ESTs, are short sequences of randomly selected clones from a cDNA (or complementary DNA) library which are representative of the cDNA inserts of these randomly selected clones. McCombie, *et al.*, *Nature Genetics*, 1:124-130 (1992); Kurata, *et al.*, *Nature Genetics*, 8: 365-372 (1994); Okubo, *et al.*, *Nature Genetics*, 2: 173-179 (1992), all of which references are incorporated herein in their entirety.

Using conventional methodologies, cDNA libraries can be constructed from the mRNA (messenger RNA) of a given tissue or organism using poly dT primers and reverse transcriptase (Efstratiadis, *et al.*, *Cell* 7:279-288 (1976), the entirety of which is herein incorporated by reference; Higuchi, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 73:3146-3150 (1976), the entirety of which is herein incorporated by reference; Maniatis, *et al.*, *Cell* 8:163 (1976) the entirety of which is herein incorporated by reference; Land, *et al.*, *Nucleic Acids Res.* 9:2251-2266 (1981), the entirety of which is herein incorporated by

reference; Okayama, *et al.*, *Mol. Cell. Biol.* 2:161-170 (1982), the entirety of which is herein incorporated by reference; Gubler, *et al.*, *Gene* 25:263 (1983), the entirety of which is herein incorporated by reference).

Several methods may be employed to obtain full-length cDNA constructs. For example, terminal transferase can be used to add homopolymeric tails of dC residues to the free 3' hydroxyl groups (Land, *et al.*, *Nucleic Acids Res.* 9:2251-2266 (1981), the entirety of which is herein incorporated by reference). This tail can then be hybridized by a poly dG oligo which can act as a primer for the synthesis of full length second strand cDNA. Okayama and Berg, report a method for obtaining full length cDNA constructs.

This method has been simplified by using synthetic primer-adapters that have both homopolymeric tails for priming the synthesis of the first and second strands and restriction sites for cloning into plasmids (Coleclough, *et al.*, *Gene* 34:305-314 (1985), the entirety of which is herein incorporated by reference) and bacteriophage vectors (Krawinkel, *et al.*, *Nucleic Acids Res.* 14:1913 (1986), the entirety of which is herein incorporated by reference; and Han, *et al.*, *Nucleic Acids Res.* 15:6304 (1987), the entirety of which is herein incorporated by reference).

These strategies have been coupled with additional strategies for isolating rare mRNA populations. For example, a typical mammalian cell contains between 10,000 and 30,000 different mRNA sequences. Davidson, *Gene Activity in Early Development*, 2nd ed., Academic Press, New York (1976). The number of clones required to achieve a given probability that a low-abundance mRNA will be present in a cDNA library is  $N = (\ln(1-P))/(\ln(1-1/n))$  where N is the number of clones required, P is the probability desired, and 1/n is the fractional proportion of the total mRNA that is represented by a single rare mRNA (Sambrook, *et al.*, *Molecular Cloning: A Laboratory Manual*, 2nd ed., Cold Spring Harbor Laboratory Press (1989), the entirety of which is herein incorporated by reference.).

A method to enrich preparations of mRNA for sequences of interest is to fractionate by size. One such method is to fractionate by electrophoresis through an agarose gel (Pennica, *et al.*, *Nature* 301:214-221 (1983), the entirety of which is herein incorporated by reference). Another such method employs sucrose gradient

5 centrifugation in the presence of an agent, such as methylmercuric hydroxide, that denatures secondary structure in RNA (Schweinfest, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 79:4997-5000 (1982), the entirety of which is herein incorporated by reference).

A frequently adopted method is to construct equalized or normalized cDNA libraries (Ko, *Nucleic Acids Res.* 18:5705-5711 (1990), the entirety of which is herein

10 incorporated by reference; Patanjali, S. R. *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 88:1943-1947 (1991), the entirety of which is herein incorporated by reference). Typically, the cDNA population is normalized by subtractive hybridization. Schmid, *et al.*, *J. Neurochem.* 48:307-312 (1987) the entirety of which is herein incorporated by reference; Fargnoli, *et al.*, *Anal. Biochem.* 187:364-373 (1990) the entirety of which is herein

15 incorporated by reference; Travis, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 85:1696-1700 (1988) the entirety of which is herein incorporated by reference; Kato, *Eur. J. Neurosci.* 2:704 (1990); and Schweinfest, *et al.*, *Genet. Anal. Tech. Appl.* 7:64 (1990), the entirety of which is herein incorporated by reference. Subtraction represents another method for reducing the population of certain sequences in the cDNA library. Swaroop, *et al.*,

20 *Nucleic Acids Res.* 19:1954 (1991), the entirety of which is herein incorporated by reference.

ESTs can be sequenced by a number of methods. Two basic methods may be used for DNA sequencing, the chain termination method of Sanger *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 74: 5463-5467 (1977), the entirety of which is herein incorporated by

25 reference and the chemical degradation method of Maxam and Gilbert, *Proc. Nat. Acad. Sci. (U.S.A.)* 74: 560-564 (1977), the entirety of which is herein incorporated by reference. Automation and advances in technology such as the replacement of

radioisotopes with fluorescence-based sequencing have reduced the effort required to sequence DNA (Craxton, *Methods*, 2: 20-26 (1991), the entirety of which is herein incorporated by reference; Ju *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 92: 4347-4351 (1995), the entirety of which is herein incorporated by reference; Tabor and Richardson, *Proc.*

5 *Natl. Acad. Sci. (U.S.A.)* 92: 6339-6343 (1995), the entirety of which is herein incorporated by reference). Automated sequencers are available from, for example, Pharmacia Biotech, Inc., Piscataway, New Jersey (Pharmacia ALF), LI-COR, Inc., Lincoln, Nebraska (LI-COR 4,000) and Millipore, Bedford, Massachusetts (Millipore BaseStation).

10 In addition, advances in capillary gel electrophoresis have also reduced the effort required to sequence DNA and such advances provide a rapid high resolution approach for sequencing DNA samples (Swerdlow and Gesteland, *Nucleic Acids Res.* 18:1415-1419 (1990); Smith, *Nature* 349:812-813 (1991); Luckey *et al.*, *Methods Enzymol.* 218:154-172 (1993); Lu *et al.*, *J. Chromatog. A.* 680:497-501 (1994); Carson *et al.*, *Anal.*  
15 *Chem.* 65:3219-3226 (1993); Huang *et al.*, *Anal. Chem.* 64:2149-2154 (1992); Kheterpal *et al.*, *Electrophoresis* 17:1852-1859 (1996); Quesada and Zhang, *Electrophoresis* 17:1841-1851 (1996); Baba, *Yakugaku Zasshi* 117:265-281 (1997), all of which are herein incorporated by reference in their entirety).

ESTs longer than 150 bases have been found to be useful for similarity searches  
20 and mapping. (Adams, *et al.*, *Science* 252:1651-1656 (1991), herein incorporated by reference.) EST sequences normally range from 150-450 bases. This is the length of sequence information that is routinely and reliably generated using single run sequence data. Typically, only single run sequence data is obtained from the cDNA library, Adams, *et al.*, *Science* 252:1651-1656 (1991). Automated single run sequencing  
25 typically results in an approximately 2-3% error or base ambiguity rate. (Boguski, *et al.*, *Nature Genetics*, 4:332-333 (1993), the entirety of which is herein incorporated by reference).

EST databases have been constructed or partially constructed from, for example, *C. elegans* (McCombie, *et al.*, *Nature Genetics* 1:124-131 (1992), human liver cell line HepG2 (Okubo, *et al.*, *Nature Genetics* 2:173-179 (1992)), human brain RNA (Adams, *et al.*, *Science* 252:1651-1656 (1991); Adams, *et al.*, *Nature* 355:632-635 (1992)),  
 5 *Arabidopsis*, (Newman, *et al.*, *Plant Physiol.* 106:1241-1255 (1994)); and rice (Kurata, *et al.*, *Nature Genetics* 8:365-372 (1994)).

## II. SEQUENCE COMPARISONS

A characteristic feature of a protein or DNA sequence is that it can be compared with other known protein or DNA sequences. Sequence comparisons can be undertaken  
 10 by determining the similarity of the test or query sequence with sequences in publicly available or propriety databases ("similarity analysis") or by searching for certain motifs ("intrinsic sequence analysis")(e.g. *cis* elements)(Coulson, *Trends in Biotechnology*, 12: 76-80 (1994), the entirety of which is herein incorporated by reference; Birren, *et al.*, *Genome Analysis*, 1: 543-559 (1997), the entirety of which is herein incorporated by  
 15 reference).

Similarity analysis includes database search and alignment. Examples of public databases include the DNA Database of Japan (DDBJ)(<http://www.ddbj.nig.ac.jp/>); Genebank (<http://www.ncbi.nlm.nih.gov/web/Genbank/Index.html>); and the European Molecular Biology Laboratory Nucleic Acid Sequence Database (EMBL)  
 20 ([http://www.ebi.ac.uk/ebi\\_docs/embl\\_db.html](http://www.ebi.ac.uk/ebi_docs/embl_db.html)). A number of different search algorithms have been developed, one example of which are the suite of programs referred to as BLAST programs. There are five implementations of BLAST, three designed for nucleotide sequences queries (BLASTN, BLASTX, and TBLASTX) and two designed for protein sequence queries (BLASTP and TBLASTN) (Coulson, *Trends in*  
 25 *Biotechnology*, 12: 76-80 (1994); Birren, *et al.*, *Genome Analysis*, 1: 543-559 (1997)).



BLASTN takes a nucleotide sequence (the query sequence) and its reverse complement and searches them against a nucleotide sequence database. BLASTN was designed for speed, not maximum sensitivity, and may not find distantly related coding sequences. BLASTX takes a nucleotide sequence, translates it in three forward reading frames and three reverse complement reading frames, and then compares the six translations against a protein sequence database. BLASTX is useful for sensitive analysis of preliminary (single-pass) sequence data and is tolerant of sequencing errors (Gish and States, *Nature Genetics*, 3: 266-272 (1993), the entirety of which is herein incorporated by reference). BLASTN and BLASTX may be used in concert for analyzing EST data (Coulson, *Trends in Biotechnology*, 12: 76-80 (1994); Birren, *et al.*, *Genome Analysis*, 1: 543-559 (1997)).

Given a coding nucleotide sequence and the protein it encodes, it is often preferable to use the protein as the query sequence to search a database because of the greatly increased sensitivity to detect more subtle relationships. This is due to the larger alphabet of proteins (20 amino acids) compared with the alphabet of nucleic acid sequences (4 bases), where it is far easier to obtain a match by chance. In addition, with nucleotide alignments, only a match (positive score) or a mismatch (negative score) is obtained, but with proteins, the presence of conservative amino acid substitutions can be taken into account. Here, a mismatch may yield a positive score if the non-identical residue has physical/chemical properties similar to the one it replaced. Various scoring matrices are used to supply the substitution scores of all possible amino acid pairs. A general purpose scoring system is the BLOSUM62 matrix (Henikoff and Henikoff, *Proteins*, 17: 49-61 (1993), the entirety of which is herein incorporated by reference), which is currently the default choice for BLAST programs. BLOSUM62 is tailored for alignments of moderately diverged sequences and thus may not yield the best results under all conditions. Altschul, *J. Mol. Biol.* 36: 290-300 (1993), the entirety of which is herein incorporated by reference, uses a combination of three matrices to cover all

contingencies. This may improve sensitivity, but at the expense of slower searches. In practice, a single BLOSUM62 matrix is often used but others (PAM40 and PAM250) may be attempted when additional analysis is necessary. Low PAM matrices are directed at detecting very strong but localized sequence similarities, whereas high PAM

5 matrices are directed at detecting long but weak alignments between very distantly related sequences.

Homologues in other organisms are available that can be used for comparative sequence analysis. Multiple alignments are performed to study similarities and differences in a group of related sequences. CLUSTAL W is a multiple sequence

10 alignment package available that performs progressive multiple sequence alignments based on the method of Feng and Doolittle, *J. Mol. Evol.* 25: 351-360 (1987), the entirety of which is herein incorporated by reference. Each pair of sequences is aligned and the distance between each pair is calculated; from this distance matrix, a guide tree is calculated, and all of the sequences are progressively aligned based on this tree. A

15 feature of the program is its sensitivity to the effect of gaps on the alignment; gap penalties are varied to encourage the insertion of gaps in probable loop regions instead of in the middle of structured regions. Users can specify gap penalties, choose between a number of scoring matrices, or supply their own scoring matrix for both the pairwise alignments and the multiple alignments. CLUSTAL W for UNIX and VMS systems is

20 available at: <ftp://ftp.ebi.ac.uk>. Another program is MACAW (Schuler *et al.*, *Proteins, Struct. Func. Genet.* 9:180-190 (1991), the entirety of which is herein incorporated by reference, for which both Macintosh and Microsoft Windows versions are available. MACAW uses a graphical interface, provides a choice of several alignment algorithms, and is available by anonymous ftp at: [ncbi.nlm.nih.gov](ftp://ncbi.nlm.nih.gov) (directory/pub/macaw).

25 Sequence motifs are derived from multiple alignments and can be used to examine individual sequences or an entire database for subtle patterns. With motifs, it is sometimes possible to detect distant relationships that may not be demonstrable based on

comparisons of primary sequences alone. Currently, the largest collection of sequence motifs in the world is PROSITE (Bairoch and Bucher, *Nucleic Acid Research*, 22: 3583-3589 (1994), the entirety of which is herein incorporated by reference.) PROSITE may be accessed via either the ExPASy server on the World Wide Web or anonymous ftp site.

- 5 Many commercial sequence analysis packages also provide search programs that use PROSITE data.

A resource for searching protein motifs is the BLOCKS E-mail server developed by S. Henikoff, *Trends Biochem Sci.*, 18:267-268 (1993), the entirety of which is herein incorporated by reference; Henikoff and Henikoff, *Nucleic Acid Research*, 19:6565-6572  
 10 (1991), the entirety of which is herein incorporated by reference; Henikoff and Henikoff, *Proteins*, 17: 49-61 (1993). BLOCKS searches a protein or nucleotide sequence against a database of protein motifs or "blocks." Blocks are defined as short, ungapped multiple alignments that represent highly conserved protein patterns. The blocks themselves are derived from entries in PROSITE as well as other sources. Either a protein or nucleotide  
 15 query can be submitted to the BLOCKS server; if a nucleotide sequence is submitted, the sequence is translated in all six reading frames and motifs are sought in these conceptual translations. Once the search is completed, the server will return a ranked list of significant matches, along with an alignment of the query sequence to the matched BLOCKS entries.

20 Conserved protein domains can be represented by two-dimensional matrices, which measure either the frequency or probability of the occurrences of each amino acid residue and deletions or insertions in each position of the domain. This type of model, when used to search against protein databases, is sensitive and usually yields more accurate results than simple motif searches. Two popular implementations of this  
 25 approach are profile searches (such as GCG program ProfileSearch) and Hidden Markov Models (HMMs)(Krough *et al.*, *J. Mol. Biol.* 235:1501-1531 (1994); Eddy, *Current Opinion in Structural Biology* 6:361-365 (1996), both of which are herein incorporated

by reference in their entirety). In both cases, a large number of common protein domains have been converted into profiles, as present in the PROSITE library, or HMM models, as in the Pfam protein domain library (Sonnhammer *et al.*, *Proteins* 28:405-420 (1997), the entirety of which is herein incorporated by reference). Pfam contains more than 500

5 HMM models for enzymes, transcription factors, signal transduction molecules, and structural proteins. Protein databases can be queried with these profiles or HMM models, which will identify proteins containing the domain of interest. For example, HMMSW or HMMFS, two programs in a public domain package called HMMER (Sonnhammer *et al.*, *Proteins* 28:405-420 (1997)) can be used.

10 PROSITE and BLOCKS represent collected families of protein motifs. Thus, searching these databases entails submitting a single sequence to determine whether or not that sequence is similar to the members of an established family. Programs working in the opposite direction compare a collection of sequences with individual entries in the protein databases. An example of such a program is the Motif Search Tool, or MoST  
15 (Tatusov *et al. Proc. Natl. Acad. Sci. 91*: 12091-12095 (1994), the entirety of which is herein incorporated by reference.) On the basis of an aligned set of input sequences, a weight matrix is calculated by using one of four methods (selected by the user); a weight matrix is simply a representation, position by position in an alignment, of how likely a particular amino acid will appear. The calculated weight matrix is then used to search the  
20 databases. To increase sensitivity, newly found sequences are added to the original data set, the weight matrix is recalculated, and the search is performed again. This procedure continues until no new sequences are found.

### **Summary of the Invention**

The present invention provides a substantially purified nucleic acid molecule that  
25 encodes an *Arabidopsis thaliana* protein or fragment thereof comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 18718.

The present invention also provides one or more substantially purified nucleic acid molecules comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO:18718 or complements thereof.

The present invention also provides a substantially purified *Arabidopsis thaliana* protein or fragment thereof, wherein said *Arabidopsis thaliana* protein is encoded by a nucleic acid molecule that comprises a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 18718.

The present invention further provides a substantially purified protein, peptide, or fragment thereof encoded by a nucleic acid sequence which specifically hybridizes to a nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of a complement of SEQ ID NO: 1 through SEQ ID NO:18718.

The present invention further provides a substantially purified antibody capable of specifically binding to a protein or fragment thereof encoded by a nucleic acid sequence which specifically hybridizes to a nucleic acid molecule having a nucleic acid sequence selected from the group consisting of a complement of SEQ ID NO:1 through SEQ ID NO:18718.

The present invention also provides a transformed plant transformed to contain a nucleic acid molecule which comprises: (A) an exogenous promoter region which functions in plant cells to cause the production of an mRNA molecule; which is linked to (B) a structural nucleic acid molecule, wherein said structural nucleic acid molecule comprises a nucleic acid molecule that encodes a protein, peptide, or fragment thereof which hybridizes to a nucleic acid sequence selected from the group consisting of a complement of SEQ ID NO:1 through SEQ ID NO:18718 expressed in an effective amount to produce a desirable agronomic effect; which is linked to (C) a 3' non-translated sequence that functions in plant cells to cause the termination of transcription and the addition of polyadenylated ribonucleotides to the 3' end of the mRNA sequence.

The present invention also provides a transformed plant cell containing a nucleic acid molecule whose non-transcribed strand encodes a protein or fragment thereof, wherein the transcribed strand of said nucleic acid is complementary to a nucleic acid molecule that encodes a protein or fragment thereof. The present invention also provides  
5 bacterial, viral, microbial, and plant cells comprising a nucleic acid molecule of the present invention

The present invention also provides a method of producing a plant containing one or more proteins encoded by sequences comprising SEQ ID NO:1 or complement thereof through SEQ ID NO:18718 or complements thereof, expressed in a sufficient amount  
10 and/or fashion to produce a desirable agronomic effect.

In accomplishing the foregoing, there is provided, in accordance with one aspect of the present invention, methods of producing genetically transformed plants, comprising the steps of:

- (a) inserting into the genome of a plant cell a recombinant, double-stranded  
15 DNA molecule comprising
- (i) a promoter which functions in plant cells to cause the production of an RNA sequence,
  - (ii) a structural DNA sequence that causes the production of an RNA sequence which encodes a desired protein.
  - (iii) a 3' non-translated DNA sequence which functions in plant cells to  
20 cause the addition of polyadenylated nucleotides to the 3' end of RNA sequence; where the promoter is homologous or heterologous with respect to the coding sequence and adapted to cause sufficient expression of a protein in desired plant tissues to enhance the  
25 agronomic utility of a plant transformed with said gene.

- (b) obtaining a transformed plant cell with said nucleic acid molecule that encodes one or more proteins, wherein said nucleic acid molecule is transcribed and results in expression of said protein(s); and
- (c) regenerating from the transformed plant cell a genetically transformed plant

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The present invention also encompasses differentiated plants, seeds, and progeny comprising said transformed plant cells and which exhibit novel properties of agronomic significance.

The present invention also provides a method of producing a plant containing reduced levels of a protein comprising: (A) transforming a plant cell with a nucleic acid molecule that encodes a protein, wherein said nucleic acid molecule is transcribed and results in co-suppression of endogenous protein synthesis activity, and (B) regenerating plants and producing subsequent progeny from the transformed plant.

The present invention also provides a method of determining an association between a polymorphism and a plant trait comprising: (A) hybridizing a nucleic acid molecule specific for a polymorphism to genetic material of a plant, wherein said nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO:18718 or complements thereof; and (B) calculating the degree of association between the polymorphism and the plant trait.

The present invention also provides a method of isolating a genetic region, or nucleic acid that encodes a protein or fragment thereof comprising: (A) incubating under conditions permitting nucleic acid hybridization: a marker nucleic acid molecule, preferably an EST, with a complementary nucleic acid molecule obtained from a plant cell or plant tissue; (B) permitting hybridization between said marker nucleic acid molecule, preferably an EST, and said complementary nucleic acid molecule obtained from said plant cell or plant tissue; and (C) isolating said complementary nucleic acid molecule.

The present invention also provides a method for determining a level or pattern in a plant cell of a protein in a plant comprising: (A) incubating, under conditions permitting nucleic acid hybridization, a marker nucleic acid molecule, the marker nucleic acid molecule selected from the group of marker nucleic acid molecules which

5 specifically hybridize to a nucleic acid molecule having the nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 18718 or complements thereof or fragments of either, with a complementary nucleic acid molecule obtained from the plant cell or plant tissue, wherein nucleic acid hybridization between the marker nucleic acid molecule and the complementary nucleic acid molecule obtained

10 from the plant cell or plant tissue permits the detection of an mRNA for the enzyme; (B) permitting hybridization between the marker nucleic acid molecule and the complementary nucleic acid molecule obtained from the plant cell or plant tissue; and (C) detecting the level or pattern of the complementary nucleic acid, wherein the detection of the complementary nucleic acid is predictive of the level or pattern of the protein.

15 The present invention also provides a method for determining the level or pattern of a protein in a plant cell or plant tissue comprising: (A) incubating under conditions permitting nucleic acid hybridization: a marker nucleic acid molecule, the marker nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 18718 or complements thereof, with a

20 complementary nucleic acid molecule obtained from a plant cell or plant tissue, wherein nucleic acid hybridization between the marker nucleic acid molecule, and the complementary nucleic acid molecule obtained from the plant cell or plant tissue permits the detection of said protein; (B) permitting hybridization between the marker nucleic acid molecule and the complementary nucleic acid molecule obtained from the plant cell

25 or plant tissue; and (C) detecting the level or pattern of the complementary nucleic acid, wherein the detection of said complementary nucleic acid is predictive of the level or pattern of the protein synthesis.



The present invention also provides a method for determining a level or pattern of a protein in a plant cell or plant tissue which comprises assaying the concentration of a molecule, whose concentration is dependent upon the expression of a gene, the gene having a nucleic acid sequence which specifically hybridizes to a protein marker nucleic acid molecule, the molecule being present in a plant cell or plant tissue, in comparison to the concentration of that molecule present in a plant cell or plant tissue with a known level or pattern of said protein, wherein an assayed concentration of the molecule is compared to the assayed concentration of the molecule in a plant cell or plant tissue with a known level or pattern of said protein.

The present invention also provides a method of determining a mutation in a plant whose presence is predictive of a mutation affecting a level or pattern of a protein comprising the steps: (A) incubating, under conditions permitting nucleic acid hybridization, a marker nucleic acid, the marker nucleic acid selected from the group of marker nucleic acid molecules which specifically hybridize to a nucleic acid molecule consisting of the nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 18718 or complements thereof or fragments of either and a complementary nucleic acid molecule obtained from the plant, wherein nucleic acid hybridization between the marker nucleic acid molecule and the complementary nucleic acid molecule obtained from the plant permits the detection of a polymorphism whose presence is predictive of a mutation affecting the level or pattern of the protein in the plant; (B) permitting hybridization between the marker nucleic acid molecule and the complementary nucleic acid molecule obtained from the plant; and (C) detecting the presence of the polymorphism, wherein the detection of the polymorphism is predictive of the mutation.

The present invention also provides a method for determining a mutation in a plant whose presence is predictive of a mutation affecting the level or pattern of protein synthesis comprising the steps: (A) incubating under conditions permitting nucleic acid

hybridization: a marker nucleic acid molecule, the marker nucleic acid molecule comprising a nucleic acid molecule that is linked to gene, the gene having a nucleic acid sequence which specifically hybridizes to a sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO:18718 and complements thereof, and a

- 5 complementary nucleic acid molecule obtained from a plant tissue or plant cell of the plant, wherein nucleic acid hybridization between the marker nucleic acid molecule and the complementary nucleic acid molecule obtained from the plant permits the detection of a polymorphism whose presence is predictive of a mutation affecting said level or pattern of a protein synthesis in the plant; (B) permitting hybridization between said marker
- 10 nucleic acid molecule and said complementary nucleic acid molecule obtained from said plant; and; (C) detecting the presence of the polymorphism, wherein the detection of the polymorphism is predictive of the mutation.

The present invention also provides a method for reducing expression of a protein in a plant cell, the method comprising: growing a transformed plant cell containing a

- 15 nucleic acid molecule whose non-transcribed strand encodes a protein or fragment thereof, wherein the transcribed strand of said nucleic acid is complementary to a nucleic acid molecule that encodes the protein in said plant cell, and whereby the strand that is complementary to the nucleic acid molecule that encodes the protein reduces or depresses expression of the protein.

- 20 The present invention provides *Arabidopsis thaliana* nucleic acid molecules for use as molecular tags to isolate genetic regions (i.e. promoters and flanking sequences), isolate genes, map genes, and determine gene function. The present invention further provides *Arabidopsis thaliana* nucleic acid molecules for use in determining if genes are members of a particular gene family.

- 25 The present invention also provides a method of obtaining full length genes using *Arabidopsis thaliana* ESTs or complements thereof or fragments of either.

The present invention also provides a method of isolating promoters and flanking sequences using *Arabidopsis thaliana* ESTs or complements thereof or fragments of either.

5 The present invention also provides *Arabidopsis thaliana* ESTs or complements thereof or fragments of either for use in marker-assisted breeding programs.

The present invention also provides a method of identifying tissues comprising hybridizing nucleic acids from the tissue with *Arabidopsis thaliana* ESTs or complements thereof or fragments of either.

10 The present invention also provides a method for production of antibodies targeted against the proteins, peptides, or fragments produced by the disclosed or complements thereof or fragments of either.

The present invention also provides a method for the transformation and regeneration of plants comprising sequences hybridizable to the disclosed ESTs or complements thereof or fragments of either.

15 The present invention also provides a method of modifying plant protein expression by inserting in a chimeric gene sense or antisense constructs of the *Arabidopsis thaliana* ESTs.

### **Detailed Description of the Invention**

#### **Agents**

#### **20 (a) Nucleic Acid Molecules**

Agents of the present invention include nucleic acid molecules and more specifically EST nucleic acid molecules or nucleic acid fragment molecules thereof. Fragment EST nucleic acid molecules may encode significant portion(s) of, or indeed most of, the EST nucleic acid molecule. Alternatively, the fragments may comprise  
25 smaller oligonucleotides (having from about 15 to about 250 nucleotide residues, and more preferably, about 15 to about 30 nucleotide residues).

A subset of the nucleic acid molecules of the present invention includes nucleic acid molecules that are marker molecules. Another subset of the nucleic acid molecules of the present invention include nucleic acid molecules that encode a protein or fragment thereof. Another subset of the nucleic acid molecules of the present invention are EST  
5 molecules.

The term "substantially purified", as used herein, refers to a molecule separated from substantially all other molecules normally associated with it in its native state. More preferably a substantially purified molecule is the predominant species present in a preparation. A substantially purified molecule may be greater than 60% free, preferably  
10 75% free, more preferably 90% free, and most preferably 95% free from the other molecules (exclusive of solvent) present in the natural mixture. The term "substantially purified" is not intended to encompass molecules present in their native state.

The agents of the present invention will preferably be "biologically active" with respect to either a structural attribute, such as the capacity of a nucleic acid to hybridize to  
15 another nucleic acid molecule, or the ability of a protein to be bound by antibody (or to compete with another molecule for such binding). Alternatively, such an attribute may be catalytic, and thus involve the capacity of the agent to mediate a chemical reaction or response.

The agents of the present invention may also be recombinant. As used herein, the  
20 term recombinant means any agent (e.g. DNA, peptide etc.), that is, or results, however indirect, from human manipulation of a nucleic acid molecule.

It is understood that the agents of the present invention may be labeled with reagents that facilitate detection of the agent (e.g. fluorescent labels (Prober, *et al.*, *Science* 238:336-340 (1987); Albarella *et al.*, EP 144914, chemical labels (Sheldon *et al.*,  
25 U.S. Patent 4,582,789; Albarella *et al.*, U.S. Patent 4,563,417, modified bases (Miyoshi *et al.*, EP 119448, all of which are hereby incorporated by reference in their entirety).

It is further understood, that the present invention provides bacterial, viral, microbial, and plant cells comprising the agents of the present invention.

Nucleic acid molecules or fragment thereof of the present invention are capable of specifically hybridizing to other nucleic acid molecules under certain circumstances. As used herein, two nucleic acid molecules are said to be capable of specifically hybridizing to one another if the two molecules are capable of forming an anti-parallel, double-stranded nucleic acid structure. A nucleic acid molecule is said to be the "complement" of another nucleic acid molecule if they exhibit complete complementarity. As used herein, molecules are said to exhibit "complete complementarity" when every nucleotide of one of the molecules is complementary to a nucleotide of the other. Two molecules are said to be "minimally complementary" if they can hybridize to one another with sufficient stability to permit them to remain annealed to one another under at least conventional "low-stringency" conditions. Similarly, the molecules are said to be "complementary" if they can hybridize to one another with sufficient stability to permit them to remain annealed to one another under conventional "high-stringency" conditions. Conventional stringency conditions are described by Sambrook, *et al.*, In: *Molecular Cloning, A Laboratory Manual, 2nd Edition, Cold Spring Harbor Press*, Cold Spring Harbor, New York (1989), and by Haymes, *et al.* In: *Nucleic Acid Hybridization, A Practical Approach*, IRL Press, Washington, DC (1985), the entirety of which is herein incorporated by reference. Departures from complete complementarity are therefore permissible, as long as such departures do not completely preclude the capacity of the molecules to form a double-stranded structure. Thus, in order for an nucleic acid molecule or fragment of the present invention to serve as a primer or probe it need only be sufficiently complementary in sequence to be able to form a stable double-stranded structure under the particular solvent and salt concentrations employed.

Appropriate stringency conditions which promote DNA hybridization are, for example, 6.0 x sodium chloride/sodium citrate (SSC) at about 45°C, followed by a wash

of 2.0 x SSC at 50°C, are known to those skilled in the art or can be found in *Current Protocols in Molecular Biology*, John Wiley & Sons, N.Y. (1989), 6.3.1-6.3.6. For example, the salt concentration in the wash step can be selected from a low stringency of about 2.0 x SSC at 50°C to a high stringency of about 0.2 x SSC at 50°C. In addition, the temperature in the wash step can be increased from low stringency conditions at room temperature, about 22°C, to high stringency conditions at about 65°C. Both temperature and salt may be varied, or either the temperature or the salt concentration may be held constant while the other variable is changed.

In a preferred embodiment, a nucleic acid of the present invention will specifically hybridize to one or more of the nucleic acid molecules set forth in SEQ ID NO: 1 through SEQ ID NO: 18718 or complements thereof under moderately stringent conditions, for example, at about 2.0 x SSC and about 65°C.

In a particularly preferred embodiment, a nucleic acid of the present invention will include those nucleic acid molecules that specifically hybridize to one or more of the nucleic acid molecules set forth in SEQ ID NO:1 through SEQ ID NO: 18718 or complements thereof under high stringency conditions.

In one aspect of the present invention, the nucleic acid molecules of the present invention have one or more of the nucleic acid sequences set forth in SEQ ID NO: 1 through SEQ ID NO:18718 or complements thereof. In another aspect of the present invention, one or more of the nucleic acid molecules of the present invention share between 100% and 90% sequence identity with one or more of the nucleic acid sequences set forth in SEQ ID NO: 1 through SEQ ID NO:18718 or complements thereof. In a further aspect of the present invention, one or more of the nucleic acid molecules of the present invention share between 100% and 95% sequence identity with one or more of the nucleic acid sequences set forth in SEQ ID NO: 1 through SEQ ID NO:18718 or complements thereof. In a more preferred aspect of the present invention, one or more of the nucleic acid molecules of the present invention share between 100% and 98%

sequence identity with one or more of the nucleic acid sequences set forth in SEQ ID NO: 1 through SEQ ID NO:18718 or complements thereof. In an even more preferred aspect of the present invention, one or more of the nucleic acid molecules of the present invention share between 100% and 99% sequence identity with one or more of the sequences set forth in SEQ ID NO: 1 through SEQ ID NO:18718 or complements thereof. In a further, even more preferred aspect of the present invention, one or more of the nucleic acid molecules of the present invention exhibit 100% sequence identity with one or more nucleic acid molecules present within the cDNA libraries LIB9, LIB22, LIB23, LIB24, LIB25, LIB35, and LIB146 (Monsanto Company, St. Louis, Missouri, United States of America).

In a preferred embodiment of the present invention, an *Arabidopsis thaliana* protein or fragment thereof of the present invention is a homologue of another plant protein. In another preferred embodiment of the present invention, an *Arabidopsis thaliana* protein or fragment thereof of the present invention is a homologue of a fungal protein. In another preferred embodiment of the present invention, an *Arabidopsis thaliana* protein or fragment thereof of the present invention is a homologue of a mammalian protein. In another preferred embodiment of the present invention, a *Arabidopsis thaliana* protein or fragment thereof of the present invention is a homologue of a bacterial protein. In another preferred embodiment of the present invention, an *Arabidopsis thaliana* protein or fragment thereof of the present invention is a homologue of a maize protein. In another preferred embodiment of the present invention, an *Arabidopsis thaliana* protein or fragment thereof of the present invention is a homologue of a soybean protein.

In a preferred embodiment of the present invention, the nucleic molecule of the present invention encodes an *Arabidopsis thaliana* protein or fragment thereof where an *Arabidopsis thaliana* protein or fragment thereof exhibits a BLAST probability score of greater than 1E-12, preferably a BLAST probability score of between about 1E-30 and

about 1E-12, even more preferably a BLAST probability score of greater than 1E-30 with its homologue.

In another preferred embodiment of the present invention, the nucleic acid molecule encoding an *Arabidopsis thaliana* protein or fragment thereof exhibits a % identity with its homologue of between about 25% and about 40%, more preferably of between about 40 and about 70%, even more preferably of between about 70% and about 90% and even more preferably between about 90% and 99%. In another preferred embodiment, of the present invention, a *Arabidopsis thaliana* protein or fragment thereof exhibits a % identity with its homologue of 100%.

In a preferred embodiment of the present invention, the nucleic molecule of the present invention encodes a *Arabidopsis thaliana* protein or fragment thereof where the *Arabidopsis thaliana* protein exhibits a BLAST score of greater than 120, preferably a BLAST score of between about 1450 and about 120, even more preferably a BLAST score of greater than 1450 with its homologue.

Nucleic acid molecules of the present invention also include non-*Arabidopsis thaliana* homologues. Preferred non-*Arabidopsis thaliana* homologues are selected from the group consisting of alfalfa, soybean, barley, *Brassica*, broccoli, cabbage, citrus, cotton, garlic, oat, oilseed rape, onion, canola, flax, an ornamental plant, maize, pea, peanut, pepper, potato, rice, rye, sorghum, strawberry, sugarcane, sugarbeet, tomato, wheat, poplar, pine, fir, eucalyptus, apple, lettuce, lentils, grape, banana, tea, turf grasses, sunflower, oil palm and *Phaseolus*.

The degeneracy of the genetic code, which allows different nucleic acid sequences to code for the same protein or peptide, is known in the literature. (U.S. Patent No. 4,757,006, the entirety of which is herein incorporated by reference).

In an aspect of the present invention, one or more of the nucleic acid molecules of the present invention differ in nucleic acid sequence from those encoding an *Arabidopsis thaliana* protein or fragment thereof in SEQ ID NO: 1 through SEQ ID NO: 18718 due to



the degeneracy in the genetic code in that they encode the same protein but differ in nucleic acid sequence.

In another further aspect of the present invention, one or more of the nucleic acid molecules of the present invention differ in nucleic acid sequence from those encoding an *Arabidopsis thaliana* protein or fragment thereof in SEQ ID NO: 1 through SEQ ID NO: 18718 due to fact that the different nucleic acid sequences encode a protein having one or more conservative amino acid residues. Examples of conservative substitutions are set forth in Table 1. It is understood that codons capable of coding for such conservative substitutions are known in the art.

**Table 1**

<u>Original Residue</u>	<u>Conservative Substitutions</u>
Ala	Ser
Arg	Lys
Asn	Gln; His
Asp	Glu
Cys	Ser; Ala
Gln	Asn
Glu	Asp
Gly	Pro
His	Asn; Gln
Ile	Leu; Val
Leu	Ile; Val
Lys	Arg; Gln; Glu
Met	Leu; Ile
Phe	Met; Leu; Tyr
Ser	Thr
Thr	Ser

Trp	Tyr
Tyr	Trp; Phe
Val	Ile; Leu

In a further aspect of the present invention, one or more of the nucleic acid molecules of the present invention differ in nucleic acid sequence from those encoding a *Arabidopsis thaliana* protein or fragment thereof set forth in SEQ ID NO: 1 through SEQ ID NO: 18718 or fragment thereof due to the fact that one or more codons encoding an amino acid has been substituted for a codon that encodes a nonessential substitution of the amino acid originally encoded.

One aspect of the present invention concerns markers that include nucleic acid molecules SEQ ID NO: 1 through SEQ ID NO: 18718 or complements thereof or fragments of either that can act as markers or other nucleic acid molecules of the present invention that can act as markers. Genetic markers of the present invention include “dominant” or “codominant” markers “Codominant markers” reveal the presence of two or more alleles (two per diploid individual) at a locus. “Dominant markers” reveal the presence of only a single allele per locus. The presence of the dominant marker phenotype (e.g., a band of DNA) is an indication that one allele is present in either the homozygous or heterozygous condition. The absence of the dominant marker phenotype (e.g. absence of a DNA band) is merely evidence that “some other” undefined allele is present. In the case of populations where individuals are predominantly homozygous and loci are predominately dimorphic, dominant and codominant markers can be equally valuable. As populations become more heterozygous and multi-allelic, codominant markers often become more informative of the genotype than dominant markers. Marker molecules can be, for example, capable of detecting polymorphisms such as single nucleotide polymorphisms (SNPs).

SNPs are single base changes in genomic DNA sequence. They occur at greater frequency and are spaced with a greater uniformity throughout a genome than other reported forms of polymorphism. The greater frequency and uniformity of SNPs means that there is greater probability that such a polymorphism will be found near or in a genetic locus of interest than would be the case for other polymorphisms. SNPs are located in protein-coding regions and noncoding regions of a genome. Some of these SNPs may result in defective or variant protein expression (e.g., as a results of mutations or defective splicing). Analysis (genotyping) of characterized SNPs can require only a plus/minus assay rather than a lengthy measurement, permitting easier automation.

SNPs can be characterized using any of a variety of methods. Such methods include the direct or indirect sequencing of the site, the use of restriction enzymes (Botstein *et al.*, *Am. J. Hum. Genet.* 32:314-331 (1980), the entirety of which is herein incorporated reference; Konieczny and Ausubel, *Plant J.* 4:403-410 (1993), the entirety of which is herein incorporated by reference), enzymatic and chemical mismatch assays (Myers *et al.*, *Nature* 313:495-498 (1985), the entirety of which is herein incorporated by reference), allele-specific PCR (Newton *et al.*, *Nucl. Acids Res.* 17:2503-2516 (1989), the entirety of which is herein incorporated by reference; Wu *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 86:2757-2760 (1989), the entirety of which is herein incorporated by reference), ligase chain reaction (Barany, *Proc. Natl. Acad. Sci. (U.S.A.)* 88:189-193 (1991), the entirety of which is herein incorporated by reference), single-strand conformation polymorphism analysis (Labruno *et al.*, *Am. J. Hum. Genet.* 48: 1115-1120 (1991), the entirety of which is herein incorporated by reference), primer-directed nucleotide incorporation assays (Kuppuswami *et al.*, *Proc. Natl. Acad. Sci. USA* 88:1143-1147 (1991), the entirety of which is herein incorporated by reference), dideoxy fingerprinting (Sarkar *et al.*, *Genomics* 13:441-443 (1992), the entirety of which is herein incorporated by reference), solid-phase ELISA-based oligonucleotide ligation assays (Nikiforov *et al.*, *Nucl. Acids Res.* 22:4167-4175 (1994), the entirety of which is herein incorporated by

reference), oligonucleotide fluorescence-quenching assays (Livak *et al.*, *PCR Methods Appl.* 4:357-362 (1995), the entirety of which is herein incorporated by reference), 5'-nuclease allele-specific hybridization TaqMan assay (Livak *et al.*, *Nature Genet.* 9:341-342 (1995), the entirety of which is herein incorporated by reference), template-directed dye-terminator incorporation (TDI) assay (Chen and Kwok, *Nucl. Acids Res.* 25:347-353 (1997), the entirety of which is herein incorporated by reference), allele-specific molecular beacon assay (Tyagi *et al.*, *Nature Biotech.* 16: 49-53 (1998), the entirety of which is herein incorporated by reference), PinPoint assay (Haff and Smirnov, *Genome Res.* 7: 378-388 (1997), the entirety of which is herein incorporated by reference) and dCAPS analysis (Neff *et al.*, *Plant J.* 14:387-392 (1998), the entirety of which is herein incorporated by reference).

Additional markers, such as AFLP markers, RFLP markers and RAPD markers, can be utilized (Walton, *Seed World* 22-29 (July, 1993), the entirety of which is herein incorporated by reference; Burow and Blake, *Molecular Dissection of Complex Traits*, 13-29, Paterson (ed.), CRC Press, New York (1988), the entirety of which is herein incorporated by reference). DNA markers can be developed from nucleic acid molecules using restriction endonucleases, the PCR and/or DNA sequence information. RFLP markers result from single base changes or insertions/deletions. These codominant markers are highly abundant in plant genomes, have a medium level of polymorphism and are developed by a combination of restriction endonuclease digestion and Southern blotting hybridization. CAPS are similarly developed from restriction nuclease digestion but only of specific PCR products. These markers are also codominant, have a medium level of polymorphism and are highly abundant in the genome. The CAPS result from single base changes and insertions/deletions.

Another marker type, RAPDs, are developed from DNA amplification with random primers and result from single base changes and insertions/deletions in plant genomes. They are dominant markers with a medium level of polymorphisms and are

highly abundant. AFLP markers require using the PCR on a subset of restriction fragments from extended adapter primers. These markers are both dominant and codominant are highly abundant in genomes and exhibit a medium level of polymorphism.

- 5           SSRs require DNA sequence information. These codominant markers result from repeat length changes, are highly polymorphic and do not exhibit as high a degree of abundance in the genome as CAPS, AFLPs and RAPDs, SNPs also require DNA sequence information. These codominant markers result from single base substitutions. They are highly abundant and exhibit a medium of polymorphism (Rafalski *et al.*, In:
- 10   *Nonmammalian Genomic Analysis*, Birren and Lai (ed.), Academic Press, San Diego, CA, pp. 75-134 (1996), the entirety of which is herein incorporated by reference). It is understood that a nucleic acid molecule of the present invention may be used as a marker.

- A PCR probe is a nucleic acid molecule capable of initiating a polymerase activity while in a double-stranded structure with another nucleic acid. Various methods for
- 15   determining the structure of PCR probes and PCR techniques exist in the art. Computer generated searches using programs such as Primer3 ([www-genome.wi.mit.edu/cgi-bin/primer/primer3.cgi](http://www-genome.wi.mit.edu/cgi-bin/primer/primer3.cgi)), STSPipeline ([www-genome.wi.mit.edu/cgi-bin/www-STS\\_Pipeline](http://www-genome.wi.mit.edu/cgi-bin/www-STS_Pipeline)), or GeneUp (Pesole *et al.*, *BioTechniques* 25:112-123 (1998) the entirety of which is herein incorporated by reference), for example, can be used to identify
- 20   potential PCR primers.

It is understood that a fragment of one or more of the nucleic acid molecules of the present invention may be a probe and specifically a PCR probe.

(b)    **Protein and Peptide Molecules**

- A class of agents comprises one or more of the protein or peptide molecules
- 25   encoded by SEQ ID NO: 1 through SEQ ID NO:18718 or one or more of the protein or fragment thereof or peptide molecules encoded by other nucleic acid agents of the present invention. As used herein, the term "protein molecule" or "peptide molecule" includes

any molecule that comprises five or more amino acids. It is well known in the art that proteins may undergo modification, including post-translational modifications, such as, but not limited to, disulfide bond formation, glycosylation, phosphorylation, or oligomerization. Thus, as used herein, the term "protein molecule" or "peptide molecule" includes any protein molecule that is modified by any biological or non-biological process. The terms "amino acid" and "amino acids" refer to all naturally occurring L-amino acids. This definition is meant to include norleucine, ornithine, homocysteine, and homoserine.

One or more of the protein or fragment of peptide molecules may be produced via chemical synthesis, or more preferably, by expression in a suitable bacterial or eukaryotic host. Suitable methods for expression are described by Sambrook, *et al.*, (In: *Molecular Cloning, A Laboratory Manual, 2nd Edition, Cold Spring Harbor Press, Cold Spring Harbor, New York (1989)*), or similar texts.

A "protein fragment" is a peptide or polypeptide molecule whose amino acid sequence comprises a subset of the amino acid sequence of that protein. A protein or fragment thereof that comprises one or more additional peptide regions not derived from that protein is a "fusion" protein. Such molecules may be derivatized to contain carbohydrate or other moieties (such as keyhole limpet hemocyanin, etc.). Fusion protein or peptide molecule of the present invention are preferably produced via recombinant means.

Another class of agents comprise protein or peptide molecules encoded by SEQ ID NO: 1 through SEQ ID NO:18718 or complements thereof or, fragments or fusions thereof in which non-essential, or not relevant, amino acid residues have been added, replaced, or deleted. An example of such a homologue is the homologue protein of all non-*Arabidopsis thaliana* plant species, including but not limited to alfalfa, soybean, barley, *Brassica*, broccoli, cabbage, citrus, cotton, garlic, oat, oilseed rape, onion, canola, flax, maize, an ornamental plant, pea, peanut, pepper, potato, rice, rye, sorghum,

strawberry, sugarcane, sugarbeet, tomato, wheat, poplar, pine, fir, eukalyptus, apple, lettuce, peas, lentils, grape, banana, tea, turf grasses, etc. Particularly preferred non-*Arabidopsis thaliana* plants to utilize for the isolation of homologues would include alfalfa, soybean, barley, cotton, corn, oat, oilseed rape, rice, corn, canola, ornamentals, sugarcane, sugarbeet, tomato, potato, wheat, and turf grasses. Such a homologue can be obtained by any of a variety of methods. Most preferably, as indicated above, one or more of the disclosed sequences (SEQ ID NO: 1 through SEQ ID NO:18718 or complements thereof) will be used to define a pair of primers that may be used to isolate the homologue-encoding nucleic acid molecules from any desired species. Such molecules can be expressed to yield homologues by recombinant means.

**(c) Antibodies**

One aspect of the present invention concerns antibodies, single-chain antigen binding molecules, or other proteins that specifically bind to one or more of the protein or peptide molecules of the present invention and their homologues, fusions or fragments. Such antibodies may be used to quantitatively or qualitatively detect the protein or peptide molecules of the present invention. As used herein, an antibody or peptide is said to “specifically bind” to a protein or peptide molecule of the present invention if such binding is not competitively inhibited by the presence of non-related molecules.

Nucleic acid molecules that encode all or part of the protein of the present invention can be expressed, via recombinant means, to yield protein or peptides that can in turn be used to elicit antibodies that are capable of binding the expressed protein or peptide. Such antibodies may be used in immunoassays for that protein. Such protein-encoding molecules, or their fragments may be a “fusion” molecule (i.e., a part of a larger nucleic acid molecule) such that, upon expression, a fusion protein is produced. It is understood that any of the nucleic acid molecules of the present invention may be expressed, via recombinant means, to yield proteins or peptides encoded by these nucleic acid molecules.

The antibodies that specifically bind proteins and protein fragments of the present invention may be polyclonal or monoclonal, and may comprise intact immunoglobulins, or antigen binding portions of immunoglobulins (such as (F(ab'), F(ab')<sub>2</sub>) fragments, or single-chain immunoglobulins producible, for example, via recombinant means). It is understood that practitioners are familiar with the standard resource materials which describe specific conditions and procedures for the construction, manipulation and isolation of antibodies (see, for example, Harlow and Lane, In *Antibodies: A Laboratory Manual*, Cold Spring Harbor Press, Cold Spring Harbor, New York (1988), the entirety of which is herein incorporated by reference).

Murine monoclonal antibodies are particularly preferred. BALB/c mice are preferred for this purpose, however, equivalent strains may also be used. The animals are preferably immunized with approximately 25 µg of purified protein (or fragment thereof) that has been emulsified a suitable adjuvant (such as TiterMax adjuvant (Vaxcel, Norcross, GA)). Immunization is preferably conducted at two intramuscular sites, one intraperitoneal site, and one subcutaneous site at the base of the tail. An additional i.v. injection of approximately 25 µg of antigen is preferably given in normal saline three weeks later. After approximately 11 days following the second injection, the mice may be bled and the blood screened for the presence of anti-protein or peptide antibodies. Preferably, a direct binding Enzyme-Linked Immunoassay (ELISA) is employed for this purpose.

More preferably, the mouse having the highest antibody titer is given a third i.v. injection of approximately 25 µg of the same protein or fragment. The splenic leukocytes from this animal may be recovered 3 days later, and are then permitted to fuse, most preferably, using polyethylene glycol, with cells of a suitable myeloma cell line (such as, for example, the P3X63Ag8.653 myeloma cell line). Hybridoma cells are selected by culturing the cells under "HAT" (hypoxanthine-aminopterin-thymine) selection for about



one week. The resulting clones may then be screened for their capacity to produce monoclonal antibodies ("mAbs), preferably by direct ELISA.

In one embodiment, anti-protein or peptide monoclonal antibodies are isolated using a fusion of a protein, protein fragment, or peptide of the present invention, or conjugate of a protein, protein fragment, or peptide of the present invention, as immunogens. Thus, for example, a group of mice can be immunized using a fusion protein emulsified in Freund's complete adjuvant (e.g. approximately 50 µg of antigen per immunization). At three week intervals, an identical amount of antigen is emulsified in Freund's incomplete adjuvant and used to immunize the animals. Ten days following the third immunization, serum samples are taken and evaluated for the presence of antibody. If antibody titers are too low, a fourth booster can be employed. Polysera capable of binding the protein or peptide can also be obtained using this method.

In a preferred procedure for obtaining monoclonal antibodies, the spleens of the above-described immunized mice are removed, disrupted, and immune splenocytes are isolated over a ficoll gradient. The isolated splenocytes are fused, using polyethylene glycol with BALB/c-derived HGPRT (hypoxanthine guanine phosphoribosyl transferase) deficient P3x63xAg8.653 plasmacytoma cells. The fused cells are plated into 96-well microtiter plates and screened for hybridoma fusion cells by their capacity to grow in culture medium supplemented with hypoxanthine, aminopterin and thymidine for approximately 2-3 weeks.

Hybridoma cells that arise from such incubation are preferably screened for their capacity to produce an immunoglobulin that binds to a protein of interest. An indirect ELISA may be used for this purpose. In brief, the supernatants of hybridomas are incubated in microtiter wells that contain immobilized protein. After washing, the titer of bound immunoglobulin can be determined using, for example, a goat anti-mouse antibody conjugated to horseradish peroxidase. After additional washing, the amount of immobilized enzyme is determined (for example through the use of a chromogenic

substrate). Such screening is performed as quickly as possible after the identification of the hybridoma in order to ensure that a desired clone is not overgrown by non-secreting neighbors. Desirably, the fusion plates are screened several times since the rates of hybridoma growth vary. In a preferred sub-embodiment, a different antigenic form of immunogen may be used to screen the hybridoma. Thus, for example, the splenocytes may be immunized with one immunogen, but the resulting hybridomas can be screened using a different immunogen. It is understood that any of the protein or peptide molecules of the present invention may be used to raise antibodies.

As discussed below, such antibody molecules or their fragments may be used for diagnostic purposes. Where the antibodies are intended for diagnostic purposes, it may be desirable to derivatize them, for example with a ligand group (such as biotin) or a detectable marker group (such as a fluorescent group, a radioisotope or an enzyme).

The ability to produce antibodies that bind the protein or peptide molecules of the present invention permits the identification of mimetic compounds of those molecules. A “mimetic compound” is a compound that is not that compound, or a fragment of that compound, but which nonetheless exhibits an ability to specifically bind to antibodies directed against that compound.

It is understood that any of the agents of the present invention can be substantially purified and/or be biologically active and/or recombinant.

#### **Uses of the Agents of the Invention**

The nucleic acid molecules and fragments thereof of LIB9 are isolated from *Arabidopsis thaliana*, ecotype Columbia, leaf tissue. Leaves are the carbohydrate factories of crop plants, therefore; the ESTs of the present invention will find great use in the isolation of a variety of agronomically significant genes, including but not limited to genes that are necessary for the interception and transformation of light energy via photosynthesis linked with plant growth, quality, and yield. Genes isolated utilizing the

disclosed ESTs would also be in pathways including but not limited to a pathway such as nitrogen metabolism linked to fruiting and mobilization and distribution of nitrogen.

The nucleic acid molecules and fragments thereof of LIB22 are isolated from root from *Arabidopsis thaliana*, Columbia ecotype, plants. Root libraries can enable the acquisition of genes that will facilitate gene and protein expression analysis and genetic mapping. This information will enable the determination of genes in the synthesis and catabolism of traits including but not limited to genes involved in supplying water, minerals and substances essential to plant growth and development, absorption, anchorage, storage, transport, propagation and nitrogen fixation.

The nucleic acid molecules and fragments thereof of LIB23 are isolated from *Arabidopsis thaliana*, ecotype Columbia, stem tissue. Stems are involved in plant architecture, therefore; the ESTs of the present invention will find great use in the isolation of a variety of agronomically significant genes, including but not limited to genes that are instrumental in preventing lodging or control of plant height; genes that modify vascular structure for support and result in improvements in transport of solutes, ions and water flow, lignin biosynthesis genes, and drought tolerance genes.

The nucleic acid molecules and fragments thereof of LIB24 are isolated from *Arabidopsis thaliana*, ecotype Columbia, flower bud tissue. Flower libraries can enable the acquisition of, but are not limited to genes that are involved in floral development, reproduction and seed production, therefore, the ESTs of the present invention will find great use in the isolation of a variety of agronomically significant genes, including but not limited to, genes that regulate meiosis, cell division, carotenoids, floral biogenesis, embryogenesis, protein, amino acids, sterols, oils, minerals, isoflavones, saponins, vitamins, tocopherols, antinutrient components, carbohydrates, starch metabolism and seed regulatory elements. Such genes are associated with plant growth, quality and yield, and could also serve as links in important developmental, metabolic, and catabolic pathways.

The nucleic acid molecules and fragments thereof of LIB25 are isolated from *Arabidopsis thaliana*, ecotype Columbia, open flower tissue. Flower libraries can enable the acquisition of, but are not limited to, genes that are involved in floral development, reproduction and seed production, therefore, the ESTs of the present invention will find  
 5 great use in the isolation of a variety of agronomically significant genes, including but not limited to, genes that regulate meiosis, cell division, carotenoids, floral biogenesis, embryogenesis, protein, amino acids, sterols, oils, minerals, isoflavones, saponins, vitamins, tocopherols, antinutrient components, carbohydrates, starch metabolism and seed regulatory elements. Such genes are associated with plant growth, quality and yield,  
 10 and could also serve as links in important developmental, metabolic, and catabolic pathways.

The nucleic acid molecules and fragments thereof of LIB35 are isolated from leaf from *Arabidopsis thaliana* Columbia ecotype plants. Leaves are the carbohydrate factories of crop plants, therefore; the ESTs of the present invention will find great use in  
 15 the isolation of a variety of agronomically significant genes, including but not limited to genes that are necessary for the interception and transformation of light energy via photosynthesis linked with plant growth, quality, and yield. Genes isolated utilizing the disclosed ESTs would also be in pathways including but not limited to a pathway such as nitrogen metabolism linked to fruiting and mobilization and distribution of nitrogen.

20 The nucleic acid molecules and fragments thereof of LIB146 are isolated from *Arabidopsis thaliana*, ecotype Columbia, immature seed tissue. Seed libraries can enable the acquisition of a variety of agronomically significant genes involved in the synthesis and catabolism of commercially important traits. The ESTs of the present invention can enable the the acquisition of, but are not limited to genes that regulate protein, oils, amino  
 25 acids, sterols, minerals, isoflavones, saponins, vitamins, tocopherols, antinutrient components, carbohydrates, starch metabolism and seed regulatory elements. Such genes

are associated with plant growth, quality and yield, and could also serve as links in important developmental, metabolic, and catabolic pathways.

Nucleic acid molecules and fragments thereof of the present invention may be employed to obtain other nucleic acid molecules. Such molecules include the nucleic acid molecules of other plants or other organisms (*e.g.*, alfalfa, rice, potato, cotton, oat, rye, barley, maize, wheat, soybean, *Brassica*, etc.) including the nucleic acid molecules that encode, in whole or in part, protein homologues of other plant species or other organisms, and sequences of genetic elements such as promoters and transcriptional regulatory elements. Such molecules can be readily obtained by using the above-described nucleic acid molecules or fragments thereof to screen cDNA or genomic libraries obtained from such plant species. Methods for forming such libraries are well known in the art. Such homologue molecules may differ in their nucleotide sequences from those found in one or more of SEQ ID NO:1 through SEQ ID NO:18718 or complements thereof because complete complementarity is not needed for stable hybridization. The nucleic acid molecules of the present invention therefore also include molecules that, although capable of specifically hybridizing with the nucleic acid molecules may lack "complete complementarity."

Any of a variety of methods may be used to obtain one or more of the above-described nucleic acid molecules (Zamechik *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 83:4143-4146 (1986), the entirety of which is herein incorporated by reference; Goodchild *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 85:5507-5511 (1988), the entirety of which is herein incorporated by reference; Wickstrom *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 85:1028-1032 (1988), the entirety of which is herein incorporated by reference; Holt, *et al.*, *Molec. Cell. Biol.* 8:963-973 (1988), the entirety of which is herein incorporated by reference; Gerwitz, *et al.*, *Science* 242:1303-1306 (1988), the entirety of which is herein incorporated by reference; Anfossi, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 86:3379-3383 (1989), the entirety of which is herein incorporated by reference; Becker,

*et al.*, *EMBO J.* 8:3685-3691 (1989); the entirety of which is herein incorporated by reference). Automated nucleic acid synthesizers may be employed for this purpose. In lieu of such synthesis, the disclosed nucleic acid molecules may be used to define a pair of primers that can be used with the polymerase chain reaction (Mullis, *et al.*, *Cold Spring Harbor Symp. Quant. Biol.* 51:263-273 (1986); Erlich *et al.*, EP 50,424; EP 84,796, EP 258,017, EP 237,362; Mullis, EP 201,184; Mullis *et al.*, US 4,683,202; Erlich, US 4,582,788; and Saiki, R. *et al.*, US 4,683,194, all of which are hereby incorporated by reference in their entirety) to amplify and obtain any desired nucleic acid molecule or fragment.

Promoter sequence(s) and other genetic elements including but not limited to transcriptional regulatory elements associated with one or more of the disclosed nucleic acid sequences can also be obtained using the disclosed nucleic acid sequences provided herein.

In one embodiment, such sequences are obtained by incubating EST nucleic acid molecules or preferably fragments thereof with members of genomic libraries (*e.g.* maize and soybean) and recovering clones that hybridize to the EST nucleic acid molecule or fragment thereof. In a second embodiment, methods of "chromosome walking," or inverse PCR may be used to obtain such sequences (Frohman, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 85:8998-9002 (1988); Ohara, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 86: 5673-5677 (1989); Pang *et al.*, *Biotechniques*, 22(6); 1046-1048 (1977); Huang *et al.*, *Methods Mol. Biol.* 69: 89-96 (1977); Hartl *et al.*, *Methods Mol. Biol.* 58: 293-301 (1996), all of which are hereby incorporated by reference in their entirety). In one embodiment, the disclosed nucleic acid molecules are used to identify cDNAs whose analogous genes contain promoters with desirable expression patterns. The nucleic acid molecules isolated from the library of the present invention are used to isolate promoters of tissue-enhanced, tissue-specific, developmentally- or environmentally-regulated expression profiles. Isolation and functional analysis of the 5' flanking promoter

sequences of these genes from genomic libraries, for example, using genomic screening methods and PCR techniques would result in the isolation of useful promoters and transcriptional regulatory elements. These methods are known to those of skill in the art and have been described (See for example Birren *et al.*, *Genome Analysis: Analyzing DNA*, 1, (1997), Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y., the entirety of which is herein incorporated by reference).

Promoters obtained utilizing the nucleic acid molecules of the present invention could also be modified to affect their control characteristics. Examples of such modifications would include but are not limited to enhancer sequences as reported by Kay *et al.*, *Science* 236:1299 (1987), herein incorporated by reference in its entirety. Such genetic elements could be used to enhance gene expression of new and existing traits for crop improvements.

The nucleic acid molecules of the present invention may be used to isolate promoters of tissue enhanced. tissue specific, cell-specific, cell -type, developmentally or environmentally regulated expression profiles. Isolation and functional analysis of the 5' flanking promoter sequences of these genes from genomic libraries, for example, using genomic screening methods and PCR techniques would result in the isolation of useful promoters and transcriptional regulatory elements. These methods are known to those of skill in the art and have been described (See, for example, Birren *et. al.*, *Genome Analysis: Analyzing DNA*, 1, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y. (1997), the entirety of which is herein incorporated by reference). Promoters obtained utilizing the nucleic acid molecules of the present invention could also be modified to affect their control characteristics. Examples of such modifications would include but are not limited to enhancer sequences as reported by Kay, *et al Science* 236:1299 (1987), herein incorporated reference in its entirety. Such genetic elements could be used to enhance gene expression of new and existing traits for crop improvements.

In an aspect of the present invention, one or more of the nucleic molecules of the present invention are used to determine whether a plant (preferably *Arabidopsis thaliana* and more preferably *Arabidopsis thaliana*, ecotype Columbia) has a mutation affecting the level (i.e., the concentration of mRNA in a sample, etc.) or pattern (i.e., the kinetics of expression, rate of decomposition, stability profile, etc.) of the expression encoded in part or whole by one or more of the nucleic acid molecules of the present invention (collectively, the "Expression Response" of a cell or tissue). As used herein, the Expression Response manifested by a cell or tissue is said to be "altered" if it differs from the Expression Response of cells or tissues of plants not exhibiting the phenotype. To determine whether a Expression Response is altered, the Expression Response manifested by the cell or tissue of the plant exhibiting the phenotype is compared with that of a similar cell or tissue sample of a plant not exhibiting the phenotype. As will be appreciated, it is not necessary to re-determine the Expression Response of the cell or tissue sample of plants not exhibiting the phenotype each time such a comparison is made; rather, the Expression Response of a particular plant may be compared with previously obtained values of normal plants. As used herein, the phenotype of the organism is any of one or more characteristics of an organism (e.g. disease resistance, pest tolerance, environmental tolerance, male sterility, yield, quality improvements, etc.). A change in genotype or phenotype may be transient or permanent. Also as used herein, a tissue sample is any sample that comprises more than one cell. In a preferred aspect, a tissue sample comprises cells that share a common characteristic (e.g. derived from leaf, root, or pollen etc).

In one sub-aspect, such an analysis is conducted by determining the presence and/or identity of polymorphism(s) by one or more of the nucleic acid molecules of the present invention and more specifically, one or more of the EST nucleic acid molecules or fragments thereof which are associated with phenotype, or a predisposition to phenotype.



Any of a variety of molecules can be used to identify such polymorphism(s). In one embodiment, one or more of the EST nucleic acid molecules (or a sub-fragment thereof) may be employed as a marker nucleic acid molecule to identify such polymorphism(s). Alternatively, such polymorphisms can be detected through the use of

5 a marker nucleic acid molecule or a marker protein that is genetically linked to (i.e., a polynucleotide that co-segregates with) such polymorphism(s).

In an alternative embodiment, such polymorphisms can be detected through the use of a marker nucleic acid molecule that is physically linked to such polymorphism(s). For this purpose, marker nucleic acid molecules comprising a nucleotide sequence of a

10 polynucleotide located within 1 mb of the polymorphism(s), and more preferably within 100 kb of the polymorphism(s), and most preferably within 10 kb of the polymorphism(s) can be employed.

The genomes of animals and plants naturally undergo spontaneous mutation in the course of their continuing evolution (Gusella, *Ann. Rev. Biochem.* 55:831-854 (1986)). A

15 “polymorphism” is a variation or difference in the sequence of the gene or its flanking regions that arises in some of the members of a species. The variant sequence and the “original” sequence co-exist in the species’ population. In some instances, such co-existence is in stable or quasi-stable equilibrium.

A polymorphism is thus said to be “allelic,” in that, due to the existence of the

20 polymorphism, some members of a species may have the original sequence (i.e., the original “allele”) whereas other members may have the variant sequence (i.e., the variant “allele”). In the simplest case, only one variant sequence may exist, and the polymorphism is thus said to be di-allelic. In other cases, the species’ population may contain multiple alleles, and the polymorphism is termed tri-allelic, etc. A single gene

25 may have multiple different unrelated polymorphisms. For example, it may have a di-allelic polymorphism at one site, and a multi-allelic polymorphism at another site.

The variation that defines the polymorphism may range from a single nucleotide variation to the insertion or deletion of extended regions within a gene. In some cases, the DNA sequence variations are in regions of the genome that are characterized by short tandem repeats (STRs) that include tandem di- or tri-nucleotide repeated motifs of

5 nucleotides. Polymorphisms characterized by such tandem repeats are referred to as "variable number tandem repeat" ("VNTR") polymorphisms. VNTRs have been used in identity analysis (Weber, U.S. Patent 5,075,217; Armour, *et al.*, *FEBS Lett.* 307:113-115 (1992); Jones, *et al.*, *Eur. J. Haematol.* 39:144-147 (1987); Horn, *et al.*, PCT Application WO91/14003; Jeffreys, European Patent Application 370,719; Jeffreys, U.S. Patent

10 5,699,082; Jeffreys, *et al.*, *Amer. J. Hum. Genet.* 39:11-24 (1986); Jeffreys, *et al.*, *Nature* 316:76-79 (1985); Gray, *et al.*, *Proc. R. Acad. Soc. Lond.* 243:241-253 (1991); Moore, *et al.*, *Genomics* 10:654-660 (1991); Jeffreys, *et al.*, *Anim. Genet.* 18:1-15 (1987); Hillel, *et al.*, *Anim. Genet.* 20:145-155 (1989); Hillel, *et al.*, *Genet.* 124:783-789 (1990), all of which are herein incorporated by reference in their entirety).

15 The detection of polymorphic sites in a sample of DNA may be facilitated through the use of nucleic acid amplification methods. Such methods specifically increase the concentration of polynucleotides that span the polymorphic site, or include that site and sequences located either distal or proximal to it. Such amplified molecules can be readily detected by gel electrophoresis or other means.

20 The most preferred method of achieving such amplification employs the polymerase chain reaction ("PCR") (Mullis, *et al.*, *Cold Spring Harbor Symp. Quant. Biol.* 51:263-273 (1986); Erlich, *et al.*, European Patent Appln. 50,424; European Patent Appln. 84,796, European Patent Application 258,017, European Patent Appln. 237,362; Mullis, European Patent Appln. 201,184; Mullis, *et al.*, U.S. Patent No. 4,683,202;

25 Erlich, U.S. Patent No. 4,582,788; and Saiki, *et al.*, U.S. Patent No. 4,683,194, all of which are herein incorporated by reference), using primer pairs that are capable of

hybridizing to the proximal sequences that define a polymorphism in its double-stranded form.

In lieu of PCR, alternative methods, such as the "Ligase Chain Reaction" ("LCR") may be used (Barany, *Proc. Natl. Acad. Sci. (U.S.A.)* 88:189-193 (1991), the entirety of which is herein incorporated by reference). LCR uses two pairs of oligonucleotide probes to exponentially amplify a specific target. The sequences of each pair of oligonucleotides is selected to permit the pair to hybridize to abutting sequences of the same strand of the target. Such hybridization forms a substrate for a template-dependent ligase. As with PCR, the resulting products thus serve as a template in subsequent cycles and an exponential amplification of the desired sequence is obtained.

LCR can be performed with oligonucleotides having the proximal and distal sequences of the same strand of a polymorphic site. In one embodiment, either oligonucleotide will be designed to include the actual polymorphic site of the polymorphism. In such an embodiment, the reaction conditions are selected such that the oligonucleotides can be ligated together only if the target molecule either contains or lacks the specific nucleotide that is complementary to the polymorphic site present on the oligonucleotide. Alternatively, the oligonucleotides may be selected such that they do not include the polymorphic site (see, Segev, PCT Application WO 90/01069, the entirety of which is herein incorporated by reference).

The "Oligonucleotide Ligation Assay" ("OLA") may alternatively be employed (Landegren, *et al.*, *Science* 241:1077-1080 (1988), the entirety of which is herein incorporated by reference). The OLA protocol uses two oligonucleotides which are designed to be capable of hybridizing to abutting sequences of a single strand of a target. OLA, like LCR, is particularly suited for the detection of point mutations. Unlike LCR, however, OLA results in "linear" rather than exponential amplification of the target sequence.

Nickerson, *et al.* have described a nucleic acid detection assay that combines attributes of PCR and OLA (Nickerson, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 87:8923-8927 (1990), the entirety of which is herein incorporated by reference). In this method, PCR is used to achieve the exponential amplification of target DNA, which is then  
 5 detected using OLA. In addition to requiring multiple, and separate, processing steps, one problem associated with such combinations is that they inherit all of the problems associated with PCR and OLA.

Schemes based on ligation of two (or more) oligonucleotides in the presence of nucleic acid having the sequence of the resulting "di-oligonucleotide", thereby amplifying  
 10 the di-oligonucleotide, are also known (Wu, *et al.*, *Genomics* 4:560 (1989), the entirety of which is herein incorporated by reference), and may be readily adapted to the purposes of the present invention.

Other known nucleic acid amplification procedures, such as allele-specific oligomers, branched DNA technology, transcription-based amplification systems, or  
 15 isothermal amplification methods may also be used to amplify and analyze such polymorphisms (Malek, *et al.*, U.S. Patent 5,130,238; Davey, *et al.*, European Patent Application 329,822; Schuster *et al.*, U.S. Patent 5,169,766; Miller, *et al.*, PCT Application WO 89/06700; Kwoh, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 86:1173-1177 (1989); Gingeras, *et al.*, PCT Application WO 88/10315; Walker, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 89:392-396 (1992), all of which are herein incorporated by reference in their  
 20 entirety).

The identification of a polymorphism can be determined in a variety of ways. By correlating the presence or absence of it in a plant with the presence or absence of a phenotype, it is possible to predict the phenotype of that plant. If a polymorphism creates  
 25 or destroys a restriction endonuclease cleavage site, or if it results in the loss or insertion of DNA (e.g., a VNTR polymorphism), it will alter the size or profile of the DNA fragments that are generated by digestion with that restriction endonuclease. As such,

individuals that possess a variant sequence can be distinguished from those having the original sequence by restriction fragment analysis. Polymorphisms that can be identified in this manner are termed "restriction fragment length polymorphisms" ("RFLPs").

RFLPs have been widely used in human and plant genetic analyses (Glassberg, UK

- 5 Patent Application 2135774; Skolnick, *et al.*, *Cytogen. Cell Genet.* 32:58-67 (1982); Botstein, *et al.*, *Ann. J. Hum. Genet.* 32:314-331 (1980); Fischer, *et al.* (PCT Application WO90/13668); Uhlen, PCT Application WO90/11369).

Polymorphisms can also be identified by Single Strand Conformation

Polymorphism (SSCP) analysis. The SSCP technique is a method capable of identifying

- 10 most sequence variations in a single strand of DNA, typically between 150 and 250 nucleotides in length (Elles, *Methods in Molecular Medicine: Molecular Diagnosis of Genetic Diseases*, Humana Press (1996), the entirety of which is herein incorporated by reference); Orita *et al.*, *Genomics* 5: 874-879 (1989), the entirety of which is herein incorporated by reference). Under denaturing conditions a single strand of DNA will
- 15 adopt a conformation that is uniquely dependent on its sequence conformation. This conformation usually will be different, even if only a single base is changed. Most conformations have been reported to alter the physical configuration or size sufficiently to be detectable by electrophoresis. A number of protocols have been described for SSCP including, but not limited to Lee *et al.*, *Anal. Biochem.* 205: 289-293 (1992), the entirety
- 20 of which is herein incorporated by reference; Suzuki *et al.*, *Anal. Biochem.* 192: 82-84 (1991), the entirety of which is herein incorporated by reference; Lo *et al.*, *Nucleic Acids Research* 20: 1005-1009 (1992), the entirety of which is herein incorporated by reference; Sarkar *et al.*, *Genomics* 13: 441-443 (1992), the entirety of which is herein incorporated by reference). It is understood that one or more of the nucleic acids of the present
- 25 invention, may be utilized as markers or probes to detect polymorphisms by SSCP analysis.

Polymorphisms may also be found using a DNA fingerprinting technique called amplified fragment length polymorphism (AFLP), which is based on the selective PCR amplification of restriction fragments from a total digest of genomic DNA to profile that DNA. Vos, *et al.*, *Nucleic Acids Res.* 23:4407-4414 (1995), the entirety of which is  
 5 herein incorporated by reference. This method allows for the specific co-amplification of high numbers of restriction fragments, which can be visualized by PCR without knowledge of the nucleic acid sequence.

AFLP employs basically three steps. Initially, a sample of genomic DNA is cut with restriction enzymes and oligonucleotide adapters are ligated to the restriction  
 10 fragments of the DNA. The restriction fragments are then amplified using PCR by using the adapter and restriction sequence as target sites for primer annealing. The selective amplification is achieved by the use of primers that extend into the restriction fragments, amplifying only those fragments in which the primer extensions match the nucleotide flanking the restriction sites. These amplified fragments are then visualized on a  
 15 denaturing polyacrylamide gel.

AFLP analysis has been performed on *Salix* (Beismann, *et al.*, *Mol. Ecol.* 6:989-993 (1997), the entirety of which is herein incorporated by reference); *Acinetobacter* (Janssen, *et al.*, *Int. J. Syst. Bacteriol* 47:1179-1187 (1997), the entirety of which is herein incorporated by reference), *Aeromonas popoffi* (Huys, *et al.*, *Int. J. Syst. Bacteriol.*  
 20 47:1165-1171 (1997), the entirety of which is herein incorporated by reference), rice (McCouch, *et al.*, *Plant Mol. Biol.* 35:89-99 (1997), the entirety of which is herein incorporated by reference); Nandi, *et al.*, *Mol. Gen. Genet.* 255:1-8 (1997); Cho, *et al.*, *Genome* 39:373-378 (1996), herein incorporated by reference), barley (*Hordeum vulgare*)(Simons, *et al.*, *Genomics* 44:61-70 (1997), the entirety of which is herein  
 25 incorporated by reference; Waugh, *et al.*, *Mol. Gen. Genet.* 255:311-321 (1997), the entirety of which is herein incorporated by reference; Qi, *et al.*, *Mol. Gen Genet.* 254:330-336 (1997), the entirety of which is herein incorporated by reference; Becker, *et al.*, *Mol.*

*Gen. Genet.* 249:65-73 (1995), the entirety of which is herein incorporated by reference), potato (Van der Voort, *et al.*, *Mol. Gen. Genet.* 255:438-447 (1997), the entirety of which is herein incorporated by reference; Meksem, *et al.*, *Mol. Gen. Genet.* 249:74-81 (1995), the entirety of which is herein incorporated by reference), *Phytophthora infestans* (Van  
5 der Lee, *et al.*, *Fungal Genet. Biol.* 21:278-291 (1997), the entirety of which is herein incorporated by reference), *Bacillus anthracis* (Keim, *et al.*, *J. Bacteriol.* 179:818-824 (1997)), *Astragalus cremnophylax* (Travis, *et al.*, *Mol. Ecol.* 5:735-745 (1996), the entirety of which is herein incorporated by reference), *Arabidopsis* (Cnops, *et al.*, *Mol. Gen. Genet.* 253:32-41 (1996), the entirety of which is herein incorporated by reference),  
10 *Escherichia coli* (Lin, *et al.*, *Nucleic Acids Res.* 24:3649-3650 (1996), the entirety of which is herein incorporated by reference), *Aeromonas* (Huys, *et al.*, *Int. J. Syst. Bacteriol.* 46:572-580 (1996), the entirety of which is herein incorporated by reference), nematode (Folkertsma, *et al.*, *Mol. Plant Microbe Interact.* 9:47-54 (1996), the entirety of which is herein incorporated by reference), tomato (Thomas, *et al.*, *Plant J.* 8:785-794  
15 (1995), the entirety of which is herein incorporated by reference), and human (Latorra, *et al.*, *PCR Methods Appl.* 3:351-358 (1994)). AFLP analysis has also been used for fingerprinting mRNA (Money, *et al.*, *Nucleic Acids Res.* 24:2616-2617 (1996), the entirety of which is herein incorporated by reference; Bachem, *et al.*, *Plant J.* 9:745-753 (1996), the entirety of which is herein incorporated by reference). It is understood that  
20 one or more of the nucleic acids of the present invention, may be utilized as markers or probes to detect polymorphisms by AFLP analysis for fingerprinting mRNA.

Polymorphisms may also be found using random amplified polymorphic DNA (RAPD) (Williams *et al.*, *Nucl. Acids Res.* 18: 6531-6535 (1990), the entirety of which is herein incorporated by reference) and cleaveable amplified polymorphic sequences  
25 (CAPS) (Lyamichev *et al.*, *Science* 260: 778-783 (1993), the entirety of which is herein incorporated by reference). It is understood that one or more of the nucleic acids of the

present invention, may be utilized as markers or probes to detect polymorphisms by RAPD or CAPS analysis.

Polymorphisms are useful, through linkage analysis, to define the genetic distances or physical distances between polymorphic traits. A physical map or ordered  
 5 array of genomic DNA fragments in the desired region containing the gene may be used to characterize and isolate genes corresponding to desirable traits. For this purpose, yeast artificial chromosomes (YACs), bacterial artificial chromosomes (BACs), and cosmids are appropriate vectors for cloning large segments of DNA molecules. Although fewer clones are needed to make a contig for a specific genomic region by using YACs (Agyare  
 10 *et al.*, *Genome Res.* 7: 1-9 (1997), the entirety of which is herein incorporated by reference; James *et al.*, *Genomics* 32: 425-430 (1996), the entirety of which is herein incorporated by reference), chimerism in the inserted DNA fragment can arise. Cosmids are convenient for handling smaller-size DNA molecules and may be used for transformation in developing transgenic plants. BACs also carry DNA fragments and are  
 15 less prone to chimerism.

Through genetic mapping, a fine scale linkage map can be developed using DNA markers and, then, a genomic DNA library of large-sized fragments can be screened with molecular markers linked to the desired trait. Molecular markers are advantageous for agronomic traits that are otherwise difficult to tag, such as resistance to pathogens, insects  
 20 and nematodes, tolerance to abiotic stress, quality parameters and quantitative traits such as high yield potential.

The essential requirements for marker-assisted selection in a plant breeding program are: (1) the marker(s) should co-segregate or be closely linked with the desired trait; (2) an efficient means of screening large populations for the molecular marker(s)  
 25 should be available; and (3) the screening technique should have high reproducibility across laboratories and preferably be economical to use and be user-friendly.



The genetic linkage of marker molecules can be established by a gene mapping model such as, without limitation, the flanking marker model reported by Lander and Botstein, *Genetics* 121:185-199 (1989) and the interval mapping, based on maximum likelihood methods described by Lander and Botstein, *Genetics* 121:185-199 (1989) and implemented in the software package MAPMAKER/QTL (Lincoln and Lander, *Mapping Genes Controlling Quantitative Traits Using MAPMAKER/QTL*, Whitehead Institute for Biomedical Research, Massachusetts, (1990). Additional software includes Qgene, Version 2.23 (1996), Department of Plant Breeding and Biometry, 266 Emerson Hall, Cornell University, Ithaca, NY, the manual of which is herein incorporated by reference in its entirety). Use of Qgene software is a particularly preferred approach.

A maximum likelihood estimate (MLE) for the presence of a marker is calculated, together with an MLE assuming no QTL effect, to avoid false positives. A  $\log_{10}$  of an odds ratio (LOD) is then calculated as:  $\text{LOD} = \log_{10}(\text{MLE for the presence of a QTL} / \text{MLE given no linked QTL})$ .

The LOD score essentially indicates how much more likely the data are to have arisen assuming the presence of a QTL than in its absence. The LOD threshold value for avoiding a false positive with a given confidence, say 95%, depends on the number of markers and the length of the genome. Graphs indicating LOD thresholds are set forth in Lander and Botstein, *Genetics* 121:185-199 (1989) the entirety of which is herein incorporated by reference and further described by Arús and Moreno-González, *Plant Breeding*, Hayward *et al.*, (eds.) Chapman & Hall, London, pp. 314-331 (1993), the entirety of which is herein incorporated by reference.

Additional models can be used. Many modifications and alternative approaches to interval mapping have been reported, including the use of non-parametric methods (Kruglyak and Lander, *Genetics* 139:1421-1428 (1995), the entirety of which is herein incorporated by reference). Multiple regression methods or models can be also be used, in which the trait is regressed on a large number of markers (Jansen, *Biometrics in Plant*

*Breeding*, van Oijen and Jansen (eds.), Proceedings of the Ninth Meeting of the Eucarpia Section Biometrics in Plant Breeding, The Netherlands, pp. 116-124 (1994); Weber and Wricke, *Advances in Plant Breeding*, Blackwell, Berlin, 16 (1994), both of which is herein incorporated by reference in their entirety). Procedures combining interval

5 mapping with regression analysis, whereby the phenotype is regressed onto a single putative QTL at a given marker interval and at the same time onto a number of markers that serve as 'cofactors,' have been reported by Jansen and Stam, *Genetics* 136:1447-1455 (1994), the entirety of which is herein incorporated by reference and Zeng, *Genetics* 136:1457-1468 (1994) the entirety of which is herein incorporated by reference.

- 10 Generally, the use of cofactors reduces the bias and sampling error of the estimated QTL positions (Utz and Melchinger, *Biometrics in Plant Breeding*, van Oijen and Jansen (eds.) Proceedings of the Ninth Meeting of the Eucarpia Section Biometrics in Plant Breeding, The Netherlands, pp.195-204 (1994), the entirety of which is herein incorporated by reference, thereby improving the precision and efficiency of QTL mapping (Zeng,
- 15 *Genetics* 136:1457-1468 (1994)). These models can be extended to multi-environment experiments to analyze genotype-environment interactions (Jansen *et al.*, *Theo. Appl. Genet.* 91:33-37 (1995), the entirety of which is herein incorporated by reference).

Selection of an appropriate mapping population is important to map construction. The choice of an appropriate mapping population depends on the type of marker systems

20 employed (Tanksley *et al.*, *Molecular mapping plant chromosomes. Chromosome structure and function: Impact of new concepts*, Gustafson and Appels (eds.), Plenum Press, New York, pp 157-173 (1988), the entirety of which is herein incorporated by reference). Consideration must be given to the source of parents (adapted vs. exotic) used in the mapping population. Chromosome pairing and recombination rates can be severely

25 disturbed (suppressed) in wide crosses (adapted x exotic) and generally yield greatly reduced linkage distances. Wide crosses will usually provide segregating populations

with a relatively large array of polymorphisms when compared to progeny in a narrow cross (adapted x adapted).

An  $F_2$  population is the first generation of selfing after the hybrid seed is produced. Usually a single  $F_1$  plant is selfed to generate a population segregating for all the genes in Mendelian (1:2:1) fashion. Maximum genetic information is obtained from a completely classified  $F_2$  population using a codominant marker system (Mather, *Measurement of Linkage in Heredity*, Methuen and Co., (1938), the entirety of which is herein incorporated by reference). In the case of dominant markers, progeny tests (e.g.  $F_3$ ,  $BCF_2$ ) are required to identify the heterozygotes, thus making it equivalent to a completely classified  $F_2$  population. However, this procedure is often prohibitive because of the cost and time involved in progeny testing. Progeny testing of  $F_2$  individuals is often used in map construction where phenotypes do not consistently reflect genotype (e.g. disease resistance) or where trait expression is controlled by a QTL. Segregation data from progeny test populations (e.g.  $F_3$  or  $BCF_2$ ) can be used in map construction. Marker-assisted selection can then be applied to cross progeny based on marker-trait map associations ( $F_2$ ,  $F_3$ ), where linkage groups have not been completely disassociated by recombination events (i.e., maximum disequilibrium).

Recombinant inbred lines (RIL) (genetically related lines; usually  $>F_5$ , developed from continuously selfing  $F_2$  lines towards homozygosity) can be used as a mapping population. Information obtained from dominant markers can be maximized by using RIL because all loci are homozygous or nearly so. Under conditions of tight linkage (i.e., about  $<10\%$  recombination), dominant and co-dominant markers evaluated in RIL populations provide more information per individual than either marker type in backcross populations (Reiter *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 89:1477-1481 (1992), the entirety of which is herein incorporated by reference). However, as the distance between markers becomes larger (i.e., loci become more independent), the information in RIL populations decreases dramatically when compared to codominant markers.

Backcross populations (e.g., generated from a cross between a successful variety (recurrent parent) and another variety (donor parent) carrying a trait not present in the former) can be utilized as a mapping population. A series of backcrosses to the recurrent parent can be made to recover most of its desirable traits. Thus a population is created

5 consisting of individuals nearly like the recurrent parent but each individual carries varying amounts or mosaic of genomic regions from the donor parent. Backcross populations can be useful for mapping dominant markers if all loci in the recurrent parent are homozygous and the donor and recurrent parent have contrasting polymorphic marker alleles (Reiter *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 89:1477-1481 (1992)). Information

10 obtained from backcross populations using either codominant or dominant markers is less than that obtained from  $F_2$  populations because one, rather than two, recombinant gametes are sampled per plant. Backcross populations, however, are more informative (at low marker saturation) when compared to RILs as the distance between linked loci increases in RIL populations (i.e. about 15% recombination). Increased recombination

15 can be beneficial for resolution of tight linkages, but may be undesirable in the construction of maps with low marker saturation.

Near-isogenic lines (NIL) created by many backcrosses to produce an array of individuals that are nearly identical in genetic composition except for the trait or genomic region under interrogation can be used as a mapping population. In mapping with NILs,

20 only a portion of the polymorphic loci are expected to map to a selected region.

Bulk segregant analysis (BSA) is a method developed for the rapid identification of linkage between markers and traits of interest (Michelmore *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 88:9828-9832 (1991), the entirety of which is herein incorporated by reference). In BSA, two bulked DNA samples are drawn from a segregating population

25 originating from a single cross. These bulks contain individuals that are identical for a particular trait (resistant or susceptible to particular disease) or genomic region but

arbitrary at unlinked regions (i.e. heterozygous). Regions unlinked to the target region will not differ between the bulked samples of many individuals in BSA.

It is understood that one or more of the nucleic acid molecules of the present invention may be used as molecular markers. It is also understood that one or more of the  
 5 protein molecules of the present invention may be used as molecular markers.

In accordance with this aspect of the present invention, a sample nucleic acid is obtained from plants cells or tissues. Any source of nucleic acid may be used. Preferably, the nucleic acid is genomic DNA. The nucleic acid is subjected to restriction endonuclease digestion. For example, one or more EST nucleic acid molecule or  
 10 fragment thereof can be used as a probe in accordance with the above-described polymorphic methods. The polymorphism obtained in this approach can then be cloned to identify the mutation at the coding region which alters the protein's structure or regulatory region of the gene which affects its expression level.

In one aspect of the present invention, an evaluation can be conducted to  
 15 determine whether a particular mRNA molecule is present. One or more of the nucleic acid molecules of the present invention, preferably one or more of the EST nucleic acid molecules of the present invention are utilized to detect the presence or quantity of the mRNA species. Such molecules are then incubated with cell or tissue extracts of a plant under conditions sufficient to permit nucleic acid hybridization. The detection of double-  
 20 stranded probe-mRNA hybrid molecules is indicative of the presence of the mRNA; the amount of such hybrid formed is proportional to the amount of mRNA. Thus, such probes may be used to ascertain the level and extent of the mRNA production in a plant's cells or tissues. Such nucleic acid hybridization may be conducted under quantitative conditions (thereby providing a numerical value of the amount of the mRNA present).  
 25 Alternatively, the assay may be conducted as a qualitative assay that indicates either that the mRNA is present, or that its level exceeds a user set, predefined value.

A principle of *in situ* hybridization is that a labeled, single-stranded nucleic acid probe will hybridize to a complementary strand of cellular DNA or RNA and, under the appropriate conditions, these molecules will form a stable hybrid. When nucleic acid hybridization is combined with histological techniques, specific DNA or RNA sequences can be identified within a single cell. An advantage of *in situ* hybridization over more conventional techniques for the detection of nucleic acids is that it allows an investigator to determine the precise spatial population (Angerer *et al.*, *Dev. Biol.* 101: 477-484 (1984), the entirety of which is herein incorporated by reference; Angerer *et al.*, *Dev. Biol.* 112: 157-166 (1985), the entirety of which is herein incorporated by reference; Dixon *et al.*, *EMBO J.* 10: 1317-1324 (1991), the entirety of which is herein incorporated by reference). *In situ* hybridization may be used to measure the steady-state level of RNA accumulation. It is a sensitive technique and RNA sequences present in as few as 5-10 copies per cell can be detected (Hardin *et al.*, *J. Mol. Biol.* 202: 417-431.(1989), the entirety of which is herein incorporated by reference). A number of protocols have been devised for *in situ* hybridization, each with tissue preparation, hybridization, and washing conditions (Meyerowitz, *Plant Mol. Biol. Rep.* 5: 242-250 (1987), the entirety of which is herein incorporated by reference; Cox and Goldberg, In: *Plant Molecular Biology: A Practical Approach* (ed. C.H. Shaw), pp. 1-35. IRL Press, Oxford (1988), the entirety of which is herein incorporated by reference; Raikhel *et al.*, *In situ RNA hybridization in plant tissues*. In *Plant Molecular Biology Manual*, vol. B9: 1-32. Kluwer Academic Publisher, Dordrecht, Belgium (1989), the entirety of which is herein incorporated by reference).

*In situ* hybridization also allows for the localization of proteins within a tissue or cell (Wilkinson, *In Situ Hybridization*, Oxford University Press, Oxford (1992), the entirety of which is herein incorporated by reference; Langdale, *In Situ Hybridization* 165-179 In: *The Maize Handbook*, eds. Freeling and Walbot, Springer-Verlag, New York (1994), the entirety of which is herein incorporated by reference). It is understood that

one or more of the molecules of the present invention, preferably one or more of the EST nucleic acid molecules of the present invention or one or more of the antibodies of the present invention may be utilized to detect the level or pattern of a protein or fragment thereof by *in situ* hybridization.

5           Fluorescent *in situ* hybridization also enables the localization of a particular DNA sequence along a chromosome which is useful, among other uses, for gene mapping, following chromosomes in hybrid lines or detecting chromosomes with translocations, transversions or deletions. *In situ* hybridization has been used to identify chromosomes in several plant species (Griffor *et al.*, *Plant Mol. Biol.* 17: 101-109 (1991), the entirety  
10 of which is herein incorporated by reference; Gustafson *et al.*, *Proc. Nat'l. Acad. Sci. (U.S.A.)* 87: 1899-1902 (1990), herein incorporated by reference; Mukai and Gill, *Genome* 34: 448-452. (1991); Schwarzacher and Heslop-Harrison, *Genome* 34: 317-323 (1991); Wang *et al.*, *Jpn. J. Genet.* 66: 313-316 (1991), the entirety of which is herein incorporated by reference; Parra and Windle, *Nature Genetics*, 5: 17-21 (1993), the  
15 entirety of which is herein incorporated by reference). It is understood that the nucleic acid molecules of the present invention may be used as probes or markers to localize sequences along a chromosome.

It is also understood that one or more of the molecules of the present invention, preferably one or more of the EST nucleic acid molecules of the present invention or one  
20 or more of the antibodies of the present invention may be utilized to detect the expression level or pattern of a protein or mRNA thereof by *in situ* hybridization.

Another method to localize the expression of a molecule is tissue printing. Tissue printing provides a way to screen, at the same time on the same membrane many tissue sections from different plants or different developmental stages. Tissue-printing  
25 procedures utilize films designed to immobilize proteins and nucleic acids. In essence, a freshly cut section of an organ is pressed gently onto nitrocellulose paper, nylon membrane or polyvinylidene difluoride membrane. Such membranes are commercially

available (e.g. Millipore, Bedford, Massachusetts). The contents of the cut cell transfer onto the membrane, and the molecules are immobilized to the membrane. The immobilized molecules form a latent print that can be visualized with appropriate probes. When a plant tissue print is made on nitrocellulose paper, the cell walls leave a physical print that makes the anatomy visible without further treatment (Varner and Taylor, *Plant Physiol.* 91: 31-33 (1989), the entirety of which is herein incorporated by reference).

Tissue printing on substrate films is described by Daoust, *Exp. Cell Res.* 12: 203-211 (1957), the entirety of which is herein incorporated by reference, who detected amylase, protease, ribonuclease, and deoxyribonuclease in animal tissues using starch, gelatin, and agar films. These techniques can be applied to plant tissues (Yomo and Taylor, *Planta* 112:35-43 (1973); Harris and Chrispeels, *Plant Physiol.* 56: 292-299 (1975). Advances in membrane technology have increased the range of applications of Daoust's tissue-printing techniques allowing (Cassab and Varner, *J. Cell. Biol.* 105: 2581-2588 (1987), the entirety of which is herein incorporated by reference; the histochemical localization of various plant enzymes and deoxyribonuclease on nitrocellulose paper and nylon (Spruce *et al.*, *Phytochemistry*, 26: 2901-2903 (1987), the entirety of which is herein incorporated by reference; Barres *et al.* *Neuron* 5: 527-544 (1990), the entirety of which is herein incorporated by reference; the entirety of which is herein incorporated by reference; Reid and Pont-Lezica, *Tissue Printing: Tools for the Study of Anatomy, Histochemistry, and Gene Expression*, Academic Press, New York, New York (1992), the entirety of which is herein incorporated by reference; Reid *et al.* *Plant Physiol.* 93: 160-165 (1990), herein incorporate by reference; Ye *et al.* *Plant J.* 1: 175-183 (1991), the entirety of which is herein incorporated by reference).

It is understood that one or more of the molecules of the present invention, preferably one or more of the EST nucleic acid molecules of the present invention or one or more of the antibodies of the present invention may be utilized to detect the presence or quantity of a protein by tissue printing.



Further, it is also understood that any of the nucleic acid molecules of the present invention may be used as marker nucleic acids and or probes in connection with methods that require probes or marker nucleic acids. As used herein, a probe is an agent that is utilized to determine an attribute or feature (e.g. presence or absence, location,  
 5 correlation, etc.) or a molecule, cell, tissue or plant. As used herein, a marker nucleic acid is a nucleic acid molecule that is utilized to determine an attribute or feature (e.g., presence or absence, location, correlation, etc.) or a molecule, cell, tissue or plant.

A microarray-based method for high-throughput monitoring of plant gene expression may be utilized to measure gene-specific hybridization targets. This 'chip'-  
 10 based approach involves using microarrays of nucleic acid molecules as gene-specific hybridization targets to quantitatively measure expression of the corresponding plant genes (Schena *et al.*, *Science* 270: 467-470 (1995), the entirety of which is herein incorporated by reference; Shalon, Ph.D. Thesis. Stanford University (1996), the entirety of which is herein incorporated by reference). Every nucleotide in a large sequence can be  
 15 queried at the same time. Hybridization can be used to efficiently analyze large amounts of nucleotide sequence.

Several microarray methods have been described. One method compares the sequences to be analyzed by hybridization to a set of oligonucleotides representing all possible subsequences (Bains and Smith, *J. Theor. Biol.* 135: 303 (1989), the entirety of  
 20 which is herein incorporated by reference). A second method hybridizes the sample to an array of oligonucleotide probes. An array consisting of oligonucleotides complementary to subsequences of a target sequence can be used to determine the identity of a target sequence, measure its amount, and detect differences between the target and a reference sequence. Nucleic acid molecules microarrays may also be screened with protein  
 25 molecules or fragments thereof to determine nucleic acid molecules that specifically bind protein molecules or fragments thereof.

The microarray approach may be used with polypeptide targets (U.S. Patent No. 5,445,934; U.S. Patent No: 5,143,854; U.S. Patent No. 5,079,600; U.S. Patent No. 4,923,901, all of which are herein incorporated by reference in their entirety).

Essentially, polypeptides are synthesized on a substrate (microarray) and these

5 polypeptides can be screened with either protein molecules or fragments thereof or nucleic acid molecules in order to screen for either protein molecules or fragments thereof or nucleic acid molecules that specifically bind the target polypeptides. Implementation of these techniques rely on recently developed combinatorial technologies to generate any ordered array of a large number of oligonucleotide probes (Fodor *et al.*, *Science* 251:767-  
10 773 (1991), the entirety of which is herein incorporated by reference).

It is understood that one or more of the molecules of the present invention, preferably one or more of the nucleic acid molecules or protein molecules or fragments thereof of the present invention may be utilized in a microarray based method.

In a preferred embodiment of the present invention microarrays may be prepared  
15 that comprise nucleic acid molecules where preferably at least 10%, preferably at least 25%, more preferably at least 50% and even more preferably at least 75%, 80%, 85%, 90% or 95% of the nucleic acid molecules located on that array are selected from the group of nucleic acid molecules that specifically hybridize to one or more nucleic acid molecule having a nucleic acid sequence selected from the group of SEQ ID NO: 1  
20 through SEQ ID NO: 18718 or complement thereof or fragments of either.

A particular preferred microarray embodiment of the present invention is a microarray comprising nucleic acid molecules encoding genes or fragments thereof that are homologues of known genes or nucleic acid molecules that comprise genes or fragment thereof that elicit only limited or no matches to known genes. A further  
25 preferred microarray embodiment of the present invention is a microarray comprising nucleic acid molecules having genes or fragments thereof that are homologues of known genes and nucleic acid molecules that comprise genes or fragment thereof that elicit only

limited or no matches to known genes. Site-directed mutagenesis may be utilized to modify nucleic acid sequences, particularly as it is a technique that allows one or more of the amino acids encoded by a nucleic acid molecule to be altered (e.g. a threonine to be replaced by a methionine). Three basic methods for site-directed mutagenesis are often employed. These are cassette mutagenesis (Wells *et al.*, *Gene* 34:315-23 (1985), the entirety of which is herein incorporated by reference), primer extension (Gilliam *et al.*, *Gene* 12:129-137 (1980), the entirety of which is herein incorporated by reference); Zoller and Smith, *Methods Enzymol.* 100:468-500 (1983), the entirety of which is herein incorporated by reference; and Dalbadie-McFarland *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 79:6409-6413 (1982), the entirety of which is herein incorporated by reference) and methods based upon PCR (Scharf *et al.*, *Science* 233:1076-1078 (1986), the entirety of which is herein incorporated by reference; Higuchi *et al.*, *Nucleic Acids Res.* 16:7351-7367 (1988), the entirety of which is herein incorporated by reference). Site-directed mutagenesis approaches are also described in European Patent 0 385 962, the entirety of which is herein incorporated by reference, European Patent 0 359 472, the entirety of which is herein incorporated by reference, and PCT Patent Application WO 93/07278, the entirety of which is herein incorporated by reference.

Site-directed mutagenesis strategies have been applied to plants for both *in vitro* as well as *in vivo* site-directed mutagenesis (Lanz *et al.*, *J. Biol. Chem.* 266:9971-6 (1991), the entirety of which is herein incorporated by reference; Kovgan and Zhdanov, *Biotekhnologiya* 5:148-154; No. 207160n, Chemical Abstracts 110:225 (1989), the entirety of which is herein incorporated by reference; Ge *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 86:4037-4041 (1989), the entirety of which is herein incorporated by reference, Zhu *et al.*, *J. Biol. Chem.* 271:18494-18498 (1996), Chu *et al.*, *Biochemistry* 33:6150-6157 (1994), the entirety of which is herein incorporated by reference, Small *et al.*, *EMBO J.* 11:1291-1296 (1992), the entirety of which is herein incorporated by reference, Cho *et al.*, *Mol. Biotechnol.* 8:13-16 (1997), Kita *et al.*, *J. Biol. Chem.* 271:26529-26535

(1996), the entirety of which is herein incorporated by reference, Jin *et al.*, *Mol. Microbiol.* 7:555-562 (1993), the entirety of which is herein incorporated by reference, Hatfield and Vierstra, *J. Biol. Chem.* 267:14799-14803 (1992), the entirety of which is herein incorporated by reference, Zhao *et al.*, *Biochemistry* 31:5093-5099 (1992), the  
 5 entirety of which is herein incorporated by reference).

Any of the nucleic acid molecules of the present invention may either be modified by site-directed mutagenesis or used as, for example, nucleic acid molecules that are used to target other nucleic acid molecules for modification. It is understood that mutants with more than one altered nucleotide can be constructed using techniques that practitioners  
 10 skilled in the art are familiar with such as isolating restriction fragments and ligating such fragments into an expression vector (*see, for example, Sambrook et al., Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Press (1989)).

Sequence-specific DNA-binding proteins play a role in the regulation of transcription. The isolation of recombinant cDNAs encoding these proteins facilitates the  
 15 biochemical analysis of their structural and functional properties. Genes encoding such DNA-binding proteins have been isolated using classical genetics (Vollbrecht *et al.*, *Nature* 350: 241-243 (1991), the entirety of which is herein incorporated by reference) and molecular biochemical approaches, including the screening of recombinant cDNA libraries with antibodies (Landschulz *et al.*, *Genes Dev.* 2: 786-800 (1988), the entirety  
 20 of which is herein incorporated by reference) or DNA probes (Bodner *et al.*, *Cell* 55: 505-518 (1988), the entirety of which is herein incorporated by reference). In addition, an *in situ* screening procedure has been used and has facilitated the isolation of sequence-specific DNA-binding proteins from various plant species (Gilmartin *et al.*, *Plant Cell* 4: 839-849 (1992), the entirety of which is herein incorporated by reference; Schindler *et al.*, *EMBO J.* 11: 1261-1273 (1992) the entirety of which is herein incorporated by  
 25 reference). An *in situ* screening protocol does not require the purification of the protein of interest (Vinson *et al.*, *Genes Dev.* 2: 801-806 (1988), the entirety of which is herein

incorporated by reference; Singh *et al.*, *Cell* 52: 415-423 (1988), the entirety of which is herein incorporated by reference).

Steps may be employed to characterize DNA-protein interactions. The first is to identify promoter fragments that interact with DNA-binding proteins, to titrate binding activity, to determine the specificity of binding, and to determine whether a given DNA-binding activity can interact with related DNA sequences (Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual*, 2<sup>nd</sup> edition. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York (1989). Electrophoretic mobility-shift assay is a widely used assay. The assay provides a simple, rapid, and sensitive method for detecting DNA-

binding proteins based on the observation that the mobility of a DNA fragment through a nondenaturing, low-ionic strength polyacrylamide gel is retarded upon association with a DNA-binding protein (Fried and Crother, *Nucleic Acids Res.* 9: 6505-6525 (1981), the entirety of which is herein incorporated by reference). When one or more specific binding activities have been identified, the exact sequence of the DNA bound by the protein may be determined. Several procedures for characterizing protein/DNA-binding sites are used, including methylation and ethylation interference assays (Maxam and Gilbert, *Methods Enzymol.* 65: 499-560 (1980), the entirety of which is herein incorporated by reference; Wissman and Hillen, *Methods Enzymol.* 208: 365-379 (1991), the entirety of which is herein incorporated by reference) and footprinting techniques employing DNase I (Galas and Schmitz, *Nucleic Acids Res.* 5: 3157-3170 (1978), the entirety of which is herein incorporated by reference), 1,10-phenanthroline-copper ion methods (Sigman *et al.*, *Methods Enzymol.* 208: 365-379 (1991), the entirety of which is herein incorporated by reference) or hydroxyl radical methods (Dixon *et al.*, *Methods Enzymol.* 208: 380-413 (1991), the entirety of which is herein incorporated by reference).

It is understood that one or more of the nucleic acid molecules of the present invention, preferably one or more of the EST nucleic acid molecules of the present invention may be utilized to identify a protein or fragment thereof that specifically binds to a nucleic acid

molecule of the present invention. It is also understood that one or more of the protein molecules or fragments thereof of the present invention may be utilized to identify a nucleic acid molecule that specifically binds to it.

The two-hybrid system is based on the fact that many cellular functions are carried out by proteins that interact (physically) with one another. Two-hybrid systems have been used to probe the function of new proteins (Chien *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 88: 9578-9582 (1991) the entirety of which is herein incorporated by reference; Durfee *et al.*, *Genes Dev.* 7: 555-569 (1993) the entirety of which is herein incorporated by reference; Choi *et al.*, *Cell* 78: 499-512 (1994), the entirety of which is herein incorporated by reference; Kranz *et al.*, *Genes Dev.* 8: 313-327 (1994), the entirety of which is herein incorporated by reference).

Interaction mating techniques have facilitated a number of two-hybrid studies of protein-protein interaction. Interaction mating has been used to examine interactions between small sets of tens of proteins (Finley and Brent, *Proc. Natl. Acad. Sci. (U.S.A.)* 91: 12098-12984 (1994), the entirety of which is herein incorporated by reference), larger sets of hundreds of proteins, (Bendixen *et al.*, *Nucl. Acids Res.* 22: 1778-1779 (1994), the entirety of which is herein incorporated by reference) and to comprehensively map proteins encoded by a small genome (Bartel *et al.*, *Nature Genetics* 12: 72-77 (1996), the entirety of which is herein incorporated by reference). This technique utilizes proteins fused to the DNA-binding domain and proteins fused to the activation domain. They are expressed in two different haploid yeast strains of opposite mating type, and the strains are mated to determine if the two proteins interact. Mating occurs when haploid yeast strains come into contact and result in the fusion of the two haploids into a diploid yeast strain. An interaction can be determined by the activation of a two-hybrid reporter gene in the diploid strain. The primary advantage of this technique is that it reduces the number of yeast transformations needed to test individual interactions. It is understood that the protein-protein interactions of protein or fragments thereof of the present

invention may be investigated using the two-hybrid system and that any of the nucleic acid molecules of the present invention that encode such proteins or fragments thereof may be used to transform yeast in the two-hybrid system.

*Synechocystis* 6803 is a photosynthetic Cyanobacterium capable of oxygenic photosynthesis as well as heterotrophic growth in the absence of light. The entire genome has been sequenced, and it is reported to have a circular genome size of 3.57 Mbp containing 3168 potential open reading frames. Open reading frames (ORFs) were identified based upon their homology to other reported ORFs and by using ORF identification computer programs. Sixteen hundred potential ORFs were assigned based on their homology to previously identified ORFs. Of these 1600 ORFs, 145 were identical to reported ORFs (Kaneko *et al.*, *DNA Research* 3:109-36 (1996), herein incorporated by reference in its entirety).

Several prokaryote promoters have been used in *Synechocystis* to express heterologous genes including the tac, lac, and lambda phage promoters (Bryant (ed.), *The Molecular Biology of Cyanobacteria*, Kluwer Academic Publishers, (1994); Ferino and Chauvat, *Gene* 84:257-266 (1989), both of which are herein incorporated by reference in their entirety). Several bacterial origins of replication such as RSF1010 and ACYC are reported to replicate in *Synechocystis* (Mermet-Bouvier and Chauvat, *Current Microbiology* 28:145-148 (1994); Kuhlemeier *et al.*, *Mol. Gen. Genet.* 184:249-254 (1981), both of which are herein incorporated by reference in their entirety).

*Synechocystis* has been used to study gene regulation by gene replacement through homologous recombination or by gene disruption using antibiotic resistance markers (Pakrasi *et al.*, *EMBO* 7:325-332 (1988), herein incorporated by reference in its entirety). In such gene regulation studies, double reciprocal homologous regions of the host genome flanking the gene of interest recombine to stably integrate the gene of interest into the genome. The gene of interest can be expressed once that gene has been stably integrated into the genome. Biochemical analysis can be performed to study the effect of the replaced or deleted gene.

It is understood that the agents of the present invention may be employed in a *Synechocystis* system.

Exogenous genetic material may be transferred into a plant cell and the plant cell regenerated into a whole, fertile or sterile plant. Exogenous genetic material is any genetic material, whether naturally occurring or otherwise, from any source that is capable of being inserted into any organism. Such genetic material may be transferred into either monocotyledons and dicotyledons including but not limited to the crops, maize and soybean (*See specifically, Chistou, Particle Bombardment for Genetic Engineering of Plants*, pp 63-69 (maize), pp50-60 (soybean), Biotechnology Intelligence Unit. Academic Press, San Diego, California (1996), the entirety of which is herein incorporated by reference and generally Chistou, *Particle Bombardment for Genetic Engineering of Plants*, Biotechnology Intelligence Unit. Academic Press, San Diego, California (1996), the entirety of which is herein incorporated by reference).

Transfer of a nucleic acid that encodes for a protein can result in overexpression of that protein in a transformed cell or transgenic plant. One or more of the proteins or fragments thereof encoded by nucleic acid molecules of the present invention may be overexpressed in a transformed cell or transformed plant. Such overexpression may be the result of transient or stable transfer of the exogenous material.

Exogenous genetic material may be transferred into a plant cell by the use of a DNA vector or construct designed for such a purpose. Design of such a vector is generally within the skill of the art (*See, Plant Molecular Biology: A Laboratory Manual* eds. Clark, Springer, New York (1997), the entirety of which is herein incorporated by reference).

A construct or vector may include a plant promoter to express the protein or protein fragment of choice. A number of promoters which are active in plant cells have been described in the literature. These include the nopaline synthase (NOS) promoter (Ebert *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 84:5745-5749 (1987), the entirety of which is



herein incorporated by reference), the octopine synthase (OCS) promoter (which are carried on tumor-inducing plasmids of *Agrobacterium tumefaciens*), the caulimovirus promoters such as the cauliflower mosaic virus (CaMV) 19S promoter (Lawton *et al.*, *Plant Mol. Biol.* 9:315-324 (1987), the entirety of which is herein incorporated by reference) and the CAMV 35S promoter (Odell *et al.*, *Nature* 313:810-812 (1985), the entirety of which is herein incorporated by reference), the figwort mosaic virus 35S-promoter, the light-inducible promoter from the small subunit of ribulose-1,5-bis-phosphate carboxylase (ssRUBISCO), the Adh promoter (Walker *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 84:6624-6628 (1987), the entirety of which is herein incorporated by reference), the sucrose synthase promoter (Yang *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 87:4144-4148 (1990), the entirety of which is herein incorporated by reference), the R gene complex promoter (Chandler *et al.*, *The Plant Cell* 1:1175-1183 (1989), the entirety of which is herein incorporated by reference), and the chlorophyll a/b binding protein gene promoter, etc. These promoters have been used to create DNA constructs which have been expressed in plants; *see, e.g.*, PCT publication WO 84/02913, herein incorporated by reference in its entirety.

Promoters which are known or are found to cause transcription of DNA in plant cells can be used in the present invention. Such promoters may be obtained from a variety of sources such as plants and plant viruses. It is preferred that the particular promoter selected should be capable of causing sufficient expression to result in the production of an effective amount of a protein to cause the desired phenotype. In addition to promoters which are known to cause transcription of DNA in plant cells, other promoters may be identified for use in the current invention by screening a plant cDNA library for genes which are selectively or preferably expressed in the target tissues or cells.

For the purpose of expression in source tissues of the plant, such as the leaf, seed, root or stem, it is preferred that the promoters utilized in the present invention have

relatively high expression in these specific tissues. For this purpose, one may choose from a number of promoters for genes with tissue- or cell-specific or -enhanced expression. Examples of such promoters reported in the literature include the chloroplast glutamine synthetase GS2 promoter from pea (Edwards *et al.*, *Proc. Natl. Acad. Sci.*

- 5 (U.S.A.) 87:3459-3463 (1990), herein incorporated by reference in its entirety), the chloroplast fructose-1,6-biphosphatase (FBPase) promoter from wheat (Lloyd *et al.*, *Mol. Gen. Genet.* 225:209-216 (1991), herein incorporated by reference in its entirety), the nuclear photosynthetic ST-LS1 promoter from potato (Stockhaus *et al.*, *EMBO J.* 8:2445-2451 (1989), herein incorporated by reference in its entirety), the phenylalanine
- 10 ammonia-lyase (PAL) promoter and the chalcone synthase (CHS) promoter from *Arabidopsis thaliana*. Also reported to be active in photosynthetically active tissues are the ribulose-1,5-bisphosphate carboxylase (RbcS) promoter from eastern larch (*Larix laricina*), the promoter for the *cab* gene, *cab6*, from pine (Yamamoto *et al.*, *Plant Cell Physiol.* 35:773-778 (1994), herein incorporated by reference in its entirety), the promoter
- 15 for the *Cab-1* gene from wheat (Fejes *et al.*, *Plant Mol. Biol.* 15:921-932 (1990), herein incorporated by reference in its entirety), the promoter for the *CAB-1* gene from spinach (Lubberstedt *et al.*, *Plant Physiol.* 104:997-1006 (1994), herein incorporated by reference in its entirety), the promoter for the *cab1R* gene from rice (Luan *et al.*, *Plant Cell.* 4:971-981 (1992), the entirety of which is herein incorporated by reference), the pyruvate,
- 20 orthophosphate dikinase (PPDK) promoter from maize (Matsuoka *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 90: 9586-9590 (1993), herein incorporated by reference in its entirety), the promoter for the tobacco *Lhcb1\*2* gene (Cerdan *et al.*, *Plant Mol. Biol.* 33: 245-255. (1997), herein incorporated by reference in its entirety), the *Arabidopsis thaliana* SUC2 sucrose-H<sup>+</sup> symporter promoter (Truernit *et al.*, *Planta.* 196: 564-570
- 25 (1995), herein incorporated by reference in its entirety), and the promoter for the thylacoid membrane proteins from spinach (*psaD*, *psaF*, *psaE*, *PC*, *FNR*, *atpC*, *atpD*, *cab*, *rbcS*). Other promoters for the chlorophyll a/b-binding proteins may also be utilized in

the present invention, such as the promoters for LhcB gene and PsbP gene from white mustard (*Sinapis alba*; Kretsch *et al.*, *Plant Mol. Biol.* 28: 219-229 (1995), the entirety of which is herein incorporated by reference).

For the purpose of expression in sink tissues of the plant, such as the tuber of the potato plant, the fruit of tomato, or the seed of maize, wheat, rice, and barley, it is preferred that the promoters utilized in the present invention have relatively high expression in these specific tissues. A number of promoters for genes with tuber-specific or -enhanced expression are known, including the class I patatin promoter (Bevan *et al.*, *EMBO J.* 8: 1899-1906 (1986); Jefferson *et al.*, *Plant Mol. Biol.* 14: 995-1006 (1990), both of which are herein incorporated by reference in its entirety), the promoter for the potato tuber ADPGPP genes, both the large and small subunits, the sucrose synthase promoter (Salanoubat and Belliard, *Gene.* 60: 47-56 (1987), Salanoubat and Belliard, *Gene.* 84: 181-185 (1989), both of which are incorporated by reference in their entirety), the promoter for the major tuber proteins including the 22 kd protein complexes and proteinase inhibitors (Hannapel, *Plant Physiol.* 101: 703-704 (1993), herein incorporated by reference in its entirety), the promoter for the granule bound starch synthase gene (GBSS) (Visser *et al.*, *Plant Mol. Biol.* 17: 691-699 (1991), herein incorporated by reference in its entirety), and other class I and II patatins promoters (Koster-Topfer *et al.*, *Mol Gen Genet.* 219: 390-396 (1989); Mignery *et al.*, *Gene.* 62: 27-44 (1988), both of which are herein incorporated by reference in their entirety).

Other promoters can also be used to express a fructose 1,6 biphosphate aldolase gene in specific tissues, such as seeds or fruits. The promoter for  $\beta$ -conglycinin (Chen *et al.*, *Dev. Genet.* 10: 112-122 (1989), herein incorporated by reference in its entirety) or other seed-specific promoters such as the napin and phaseolin promoters, can be used.

The zeins are a group of storage proteins found in maize endosperm. Genomic clones for zein genes have been isolated (Pedersen *et al.*, *Cell* 29: 1015-1026 (1982), herein incorporated by reference in its entirety), and the promoters from these clones, including

the 15 kD, 16 kD, 19 kD, 22 kD, 27 kD, and gamma genes, could also be used. Other promoters known to function, for example, in maize, include the promoters for the following genes: *waxy*, *Brittle*, *Shrunken 2*, Branching enzymes I and II, starch synthases, debranching enzymes, oleosins, glutelins, and sucrose synthases. A particularly preferred promoter for maize endosperm expression is the promoter for the glutelin gene from rice, more particularly the *Osgt-1* promoter (Zheng *et al.*, *Mol. Cell Biol.* 13: 5829-5842 (1993), herein incorporated by reference in its entirety). Examples of promoters suitable for expression in wheat include those promoters for the ADPglucose pyrophosphorylase (ADPGPP) subunits, the granule bound and other starch synthases, the branching and debranching enzymes, the embryogenesis-abundant proteins, the gliadins, and the glutenins. Examples of such promoters in rice include those promoters for the ADPGPP subunits, the granule bound and other starch synthases, the branching enzymes, the debranching enzymes, sucrose synthases, and the glutelins. A particularly preferred promoter is the promoter for rice glutelin, *Osgt-1*. Examples of such promoters for barley include those for the ADPGPP subunits, the granule bound and other starch synthases, the branching enzymes, the debranching enzymes, sucrose synthases, the hordeins, the embryo globulins, and the aleurone specific proteins.

Root specific promoters may also be used. An example of such a promoter is the promoter for the acid chitinase gene (Samac *et al.*, *Plant Mol. Biol.* 25: 587-596 (1994), the entirety of which is herein incorporated by reference). Expression in root tissue could also be accomplished by utilizing the root specific subdomains of the CaMV35S promoter that have been identified (Lam *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 86:7890-7894 (1989), herein incorporated by reference in its entirety). Other root cell specific promoters include those reported by Conkling *et al.* (Conkling *et al.*, *Plant Physiol.* 93:1203-1211 (1990), the entirety of which is herein incorporated by reference).

Additional promoters that may be utilized are described, for example, in U.S. Patent Nos. 5,378,619, 5,391,725, 5,428,147, 5,447,858, 5,608,144, 5,608,144,

5,614,399, 5,633,441, 5,633,435, and 4,633,436, all of which are herein incorporated in their entirety. In addition, a tissue specific enhancer may be used (Fromm *et al.*, *The Plant Cell* 1:977-984 (1989), the entirety of which is herein incorporated by reference).

Constructs or vectors may also include, with the coding region of interest, a  
 5 nucleic acid sequence that acts, in whole or in part, to terminate transcription of that region. For example, such sequences have been isolated including the Tr7 3' sequence and the nos 3' sequence (Ingelbrecht *et al.*, *The Plant Cell* 1:671-680 (1989), the entirety of which is herein incorporated by reference; Bevan *et al.*, *Nucleic Acids Res.* 11:369-385 (1983), the entirety of which is herein incorporated by reference), or the like.

10 A vector or construct may also include regulatory elements. Examples of such include the Adh intron 1 (Callis *et al.*, *Genes and Develop.* 1:1183-1200 (1987), the entirety of which is herein incorporated by reference), the sucrose synthase intron (Vasil *et al.*, *Plant Physiol.* 91:1575-1579 (1989), the entirety of which is herein incorporated by reference) and the TMV omega element (Gallie *et al.*, *The Plant Cell* 1:301-311 (1989),  
 15 the entirety of which is herein incorporated by reference). These and other regulatory elements may be included when appropriate.

A vector or construct may also include a selectable marker. Selectable markers may also be used to select for plants or plant cells that contain the exogenous genetic material. Examples of such include, but are not limited to, a neo gene (Potrykus *et al.*,  
 20 *Mol. Gen. Genet.* 199:183-188 (1985), the entirety of which is herein incorporated by reference) which codes for kanamycin resistance and can be selected for using kanamycin, G418, etc.; a bar gene which codes for bialaphos resistance; a mutant EPSP synthase gene (Hinchee *et al.*, *Bio/Technology* 6:915-922 (1988), the entirety of which is herein incorporated by reference) which encodes glyphosate resistance; a nitrilase gene  
 25 which confers resistance to bromoxynil (Stalker *et al.*, *J. Biol. Chem.* 263:6310-6314 (1988), the entirety of which is herein incorporated by reference); a mutant acetolactate synthase gene (ALS) which confers imidazolinone or sulphonylurea resistance (European

Patent Application 154,204 (Sept. 11, 1985), the entirety of which is herein incorporated by reference); and a methotrexate resistant DHFR gene (Thillet *et al.*, *J. Biol. Chem.* 263:12500-12508 (1988), the entirety of which is herein incorporated by reference).

A vector or construct may also include a transit peptide. Incorporation of a suitable chloroplast transit peptide may also be employed (European Patent Application Publication Number 0218571, the entirety of which is herein incorporated by reference). Translational enhancers may also be incorporated as part of the vector DNA. DNA constructs could contain one or more 5' non-translated leader sequences which may serve to enhance expression of the gene products from the resulting mRNA transcripts. Such sequences may be derived from the promoter selected to express the gene or can be specifically modified to increase translation of the mRNA. Such regions may also be obtained from viral RNAs, from suitable eukaryotic genes, or from a synthetic gene sequence. For a review of optimizing expression of transgenes, see Koziel *et al.*, *Plant Mol. Biol.* 32:393-405 (1996), the entirety of which is herein incorporated by reference.

A vector or construct may also include a screenable marker. Screenable markers may be used to monitor expression. Exemplary screenable markers include a  $\beta$ -glucuronidase or uidA gene (GUS) which encodes an enzyme for which various chromogenic substrates are known (Jefferson, *Plant Mol. Biol. Rep.* 5: 387-405 (1987), the entirety of which is herein incorporated by reference; Jefferson *et al.*, *EMBO J.* 6: 3901-3907 (1987), the entirety of which is herein incorporated by reference); an R-locus gene, which encodes a product that regulates the production of anthocyanin pigments (red color) in plant tissues ((Dellaporta *et al.*, *Stadler Symposium* 11:263-282 (1988), the entirety of which is herein incorporated by reference); a  $\beta$ -lactamase gene (Sutcliffe *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 75: 3737-3741 (1978), the entirety of which is herein incorporated by reference), a gene which encodes an enzyme for which various chromogenic substrates are known (e.g., PADAC, a chromogenic cephalosporin); a luciferase gene (Ow *et al.*, *Science* 234: 856-859 (1986), the entirety of which is herein

incorporated by reference) a xylE gene (Zukowsky *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 80:1101-1105 (1983), the entirety of which is herein incorporated by reference) which encodes a catechol dioxygenase that can convert chromogenic catechols; an  $\alpha$ -amylase gene (Ikata *et al.*, *Bio/Technol.* 8:241-242 (1990), the entirety of which is herein

5 incorporated by reference); a tyrosinase gene (Katz *et al.*, *J. Gen. Microbiol.* 129:2703-2714 (1983), the entirety of which is herein incorporated by reference) which encodes an enzyme capable of oxidizing tyrosine to DOPA and dopaquinone which in turn condenses to melanin; an  $\alpha$ -galactosidase, which will turn a chromogenic  $\alpha$ -galactose substrate.

Included within the terms "selectable or screenable marker genes" are also genes

10 which encode a scriptable marker whose secretion can be detected as a means of identifying or selecting for transformed cells. Examples include markers which encode a secretable antigen that can be identified by antibody interaction, or even secretable enzymes which can be detected catalytically. Secretable proteins fall into a number of classes, including small, diffusible proteins detectable, *e.g.*, by ELISA, small active

15 enzymes detectable in extracellular solution (*e.g.*,  $\alpha$ -amylase,  $\beta$ -lactamase, phosphinothricin transferase), or proteins which are inserted or trapped in the cell wall (such as proteins which include a leader sequence such as that found in the expression unit of extension or tobacco PR-S). Other possible selectable and/or screenable marker genes will be apparent to those of skill in the art.

20 Methods and compositions for transforming a bacteria and other microorganisms are known in the art (see for example Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual*, Second Edition, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y., (1989), the entirety of which is herein incorporated by reference).

There are many methods for introducing transforming nucleic acid molecules into

25 plant cells. Suitable methods are believed to include virtually any method by which nucleic acid molecules may be introduced into a cell, such as by *Agrobacterium* infection or direct delivery of nucleic acid molecules such as, for example, by PEG-mediated

transformation, by electroporation or by acceleration of DNA coated particles, etc.

(Pottytikus, *Ann. Rev. Plant Physiol. Plant Mol. Biol.* 42:205-225 (1991), the entirety of which is herein incorporated by reference; Vasil, *Plant Mol. Biol.* 25: 925-937 (1994), the entirety of which is herein incorporated by reference. For example, electroporation has  
 5 been used to transform maize protoplasts (Fromm *et al.*, *Nature* 312:791-793 (1986), the entirety of which is herein incorporated by reference).

Other vector systems suitable for introducing transforming DNA into a host plant cell includes but is not limited to binary artificial chromosome (BIBAC) vectors (Hamilton *et al.*, *Gene* 200:107-116, (1997), the entirety of which is herein incorporated  
 10 by reference, and transfection with RNA viral vectors (Della-Cioppa *et al.*, *Ann. N.Y. Acad. Sci.* (1996), 792 (Engineering Plants for Commercial Products and Applications), 57-61, the entirety of which is herein incorporated by reference.

Technology for introduction of DNA into cells is well known to those of skill in the art. Four general methods for delivering a gene into cells have been described: (1)  
 15 chemical methods (Graham and van der Eb, *Virology*, 54:536-539 (1973), the entirety of which is herein incorporated by reference); (2) physical methods such as microinjection (Capecchi, *Cell* 22:479-488 (1980), electroporation (Wong and Neumann, *Biochem. Biophys. Res. Commun.*, 107:584-587 (1982); Fromm *et al.*, *Proc. Natl. Acad. Sci. USA*, 82:5824-5828 (1985); U. S. Patent No. 5,384,253; and the gene gun (Johnston and Tang,  
 20 *Methods Cell Biol.* 43:353-365 (1994), all of which the entirety is herein incorporated by reference; (3) viral vectors (Clapp, *Clin. Perinatol.*, 20:155-168 (1993); Lu *et al.*, *J. Exp. Med.*, 178:2089-2096 (1993); Eglitis and Anderson, *Biotechniques*, 6:608-614 (1988), all of which the entirety is herein incorporated by reference); and (4) receptor-mediated mechanisms (Curiel *et al.*, *Hum. Gen. Ther.*, 3:147-154 (1992); Wagner *et al.*, *Proc. Natl.*  
 25 *Acad. Sci. USA*, 89:6099-6103 (1992), all of which the entirety is herein incorporated by reference).



Acceleration methods that may be used include, for example, microprojectile bombardment and the like. One example of a method for delivering transforming nucleic acid molecules to plant cells is microprojectile bombardment. This method has been reviewed by Yang and Christou, eds., *Particle Bombardment Technology for Gene Transfer*, Oxford Press, Oxford, England (1994), the entirety of which is herein incorporated by reference). Non-biological particles (microprojectiles) that may be coated with nucleic acids and delivered into cells by a propelling force. Exemplary particles include those comprised of tungsten, gold, platinum, and the like.

A particular advantage of microprojectile bombardment, in addition to it being an effective means of reproducibly, and stably transforming monocotyledons, is that neither the isolation of protoplasts (Cristou *et al.*, *Plant Physiol.* 87:671-674 (1988), the entirety of which is herein incorporated by reference) nor the susceptibility of *Agrobacterium* infection is required. An illustrative embodiment of a method for delivering DNA into maize cells by acceleration is a biolistics g-particle delivery system, which can be used to propel particles coated with DNA through a screen, such as a stainless steel or Nytex screen, onto a filter surface covered with corn cells cultured in suspension. Gordon-Kamm *et al.*, describes the basic procedure for coating tungsten particles with DNA (Gordon-Kamm *et al.*, *Plant Cell* 2: 603-618 (1990), the entirety of which is herein incorporated by reference). The screen disperses the tungsten nucleic acid particles so that they are not delivered to the recipient cells in large aggregates. A particle delivery system suitable for use with the present invention is the helium acceleration PDS-1000/He gun which is available from Bio-Rad Laboratories (Bio-Rad, Hercules, California)(Sanford *et al.*, *Technique* 3:3-16 (1991), the entirety of which is herein incorporated by reference).

For the bombardment, cells in suspension may be concentrated on filters. Filters containing the cells to be bombarded are positioned at an appropriate distance below the

microprojectile stopping plate. If desired, one or more screens are also positioned between the gun and the cells to be bombarded.

Alternatively, immature embryos or other target cells may be arranged on solid culture medium. The cells to be bombarded are positioned at an appropriate distance  
 5 below the macroprojectile stopping plate. If desired, one or more screens are also positioned between the acceleration device and the cells to be bombarded. Through the use of techniques set forth herein one may obtain up to 1000 or more foci of cells transiently expressing a marker gene. The number of cells in a focus which express the exogenous gene product 48 hours post-bombardment often range from one to ten and  
 10 average one to three.

In bombardment transformation, one may optimize the prebombardment culturing conditions and the bombardment parameters to yield the maximum numbers of stable transformants. Both the physical and biological parameters for bombardment are important in this technology. Physical factors are those that involve manipulating the  
 15 DNA/microprojectile precipitate or those that affect the flight and velocity of either the macro- or microprojectiles. Biological factors include all steps involved in manipulation of cells before and immediately after bombardment, the osmotic adjustment of target cells to help alleviate the trauma associated with bombardment, and also the nature of the transforming DNA, such as linearized DNA or intact supercoiled plasmids. It is believed  
 20 that pre-bombardment manipulations are especially important for successful transformation of immature embryos. In another alternative embodiment, plastids can be stably transformed. Methods disclosed for plastid transformation in higher plants include the particle gun delivery of DNA containing a selectable marker and targeting of the DNA to the plastid genome through homologous recombination (Svab *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 87:8526-8530 (1990); Svab and Maliga, *Proc. Natl. Acad. Sci. (U.S.A.)* 90:913-917 (1993); Staub and Maliga, *EMBO J.* 12:601-606 (1993); U.S.

Patents 5,451,513 and 5,545,818, all of which are herein incorporated by reference in their entirety).

Accordingly, it is contemplated that one may wish to adjust various aspects of the bombardment parameters in small scale studies to fully optimize the conditions. One may particularly wish to adjust physical parameters such as gap distance, flight distance, tissue distance, and helium pressure. One may also minimize the trauma reduction factors by modifying conditions which influence the physiological state of the recipient cells and which may therefore influence transformation and integration efficiencies. For example, the osmotic state, tissue hydration and the subculture stage or cell cycle of the recipient cells may be adjusted for optimum transformation. The execution of other routine adjustments will be known to those of skill in the art in light of the present disclosure.

*Agrobacterium*-mediated transfer is a widely applicable system for introducing genes into plant cells because the DNA can be introduced into whole plant tissues, thereby bypassing the need for regeneration of an intact plant from a protoplast. The use of *Agrobacterium*-mediated plant integrating vectors to introduce DNA into plant cells is well known in the art. See, for example the methods described (Fraley *et al.*, *Biotechnology* 3:629-635 (1985); Rogers *et al.*, *Meth. In Enzymol*, 153:253-277 (1987), both of which are herein incorporated by reference in their entirety. Further, the integration of the Ti-DNA is a relatively precise process resulting in few rearrangements. The region of DNA to be transferred is defined by the border sequences, and intervening DNA is usually inserted into the plant genome as described (Spielmann *et al.*, *Mol. Gen. Genet.*, 205:34 (1986), the entirety of which is herein incorporated by reference).

Modern *Agrobacterium* transformation vectors are capable of replication in *E. coli* as well as *Agrobacterium*, allowing for convenient manipulations as described (Klee *et al.*, In: *Plant DNA Infectious Agents*, T. Hohn and J. Schell, eds., Springer-Verlag, New York, pp. 179-203 (1985), the entirety of which is herein incorporated by reference.

Moreover, recent technological advances in vectors for *Agrobacterium*-mediated gene transfer have improved the arrangement of genes and restriction sites in the vectors to facilitate construction of vectors capable of expressing various polypeptide coding genes. The vectors described have convenient multi-linker regions flanked by a promoter and a polyadenylation site for direct expression of inserted polypeptide coding genes and are suitable for present purposes (Rogers *et al.*, *Meth. In Enzymol.*, 153:253-277 (1987), the entirety of which is herein incorporated by reference). In addition, *Agrobacterium* containing both armed and disarmed Ti genes can be used for the transformations. In those plant strains where *Agrobacterium*-mediated transformation is efficient, it is the method of choice because of the facile and defined nature of the gene transfer.

A transgenic plant formed using *Agrobacterium* transformation methods typically contains a single gene on one chromosome. Such transgenic plants can be referred to as being heterozygous for the added gene. More preferred is a transgenic plant that is homozygous for the added structural gene; *i.e.*, a transgenic plant that contains two added genes, one gene at the same locus on each chromosome of a chromosome pair. A homozygous transgenic plant can be obtained by sexually mating (selfing) an independent segregant transgenic plant that contains a single added gene, germinating some of the seed produced and analyzing the resulting plants produced for the gene of interest.

It is also to be understood that two different transgenic plants can also be mated to produce offspring that contain two independently segregating added, exogenous genes. Selfing of appropriate progeny can produce plants that are homozygous for both added, exogenous genes that encode a polypeptide of interest. Back-crossing to a parental plant and out-crossing with a non-transgenic plant are also contemplated, as is vegetative propagation.

Transformation of plant protoplasts can be achieved using methods based on calcium phosphate precipitation, polyethylene glycol treatment, electroporation, and

combinations of these treatments. See for example (Potrykus *et al.*, *Mol. Gen. Genet.*, 205:193-200 (1986); Lorz *et al.*, *Mol. Gen. Genet.*, 199:178, (1985); Fromm *et al.*, *Nature*, 319:791,(1986); Uchimiya *et al.*, *Mol. Gen. Genet.*:204:204, (1986); Callis *et al.*, *Genes and Development*, 1183,(1987); Marcotte *et al.*, *Nature*, 335:454, (1988), all of which the entirety is herein incorporated by reference).

Application of these systems to different plant strains depends upon the ability to regenerate that particular plant strain from protoplasts. Illustrative methods for the regeneration of cereals from protoplasts are described (Fujimura *et al.*, *Plant Tissue Culture Letters*, 2:74,(1985); Toriyama *et al.*, *Theor Appl. Genet.* 205:34. (1986); Yamada *et al.*, *Plant Cell Rep.*, 4:85, (1986); Abdullah *et al.*, *Biotechnology*, 4:1087, (1986), all of which the entirety is herein incorporated by reference).

To transform plant strains that cannot be successfully regenerated from protoplasts, other ways to introduce DNA into intact cells or tissues can be utilized. For example, regeneration of cereals from immature embryos or explants can be effected as described (Vasil, *Biotechnology*, 6:397,(1988), the entirety of which is herein incorporated by reference). In addition, "particle gun" or high-velocity microprojectile technology can be utilized (Vasil *et al.*, *Bio/Technology* 10:667, (1992), the entirety of which is herein incorporated by reference).

Using the latter technology, DNA is carried through the cell wall and into the cytoplasm on the surface of small metal particles as described (Klein *et al.*, *Nature*, 328:70, (1987); Klein *et al.*, *Proc. Natl. Acad. Sci. USA*, 85:8502-8505, (1988); McCabe *et al.*, *Biotechnology*, 6:923, (1988), all of which the entirety is herein incorporated by reference). The metal particles penetrate through several layers of cells and thus allow the transformation of cells within tissue explants.

Other methods of cell transformation can also be used and include but are not limited to introduction of DNA into plants by direct DNA transfer into pollen (Zhou *et al.*, *Methods in Enzymology*, 101:433, (1983); Hess *et al.*, *Intern Rev. Cytol.*, 107:367,

(1987); Luo *et al.*, *Plant Mol Biol. Reporter*, 6:165, (1988), all of which the entirety is herein incorporated by reference), by direct injection of DNA into reproductive organs of a plant (Pena *et al.*, *Nature*, 325:274, (1987), the entirety of which is herein incorporated by reference), or by direct injection of DNA into the cells of immature embryos followed  
 5 by the rehydration of dessicated embryos (Neuhaus *et al.*, *Theor. Appl. Genet.*, 75:30, (1987), the entirety of which is herein incorporated by reference).

The regeneration, development, and cultivation of plants from single plant protoplast transformants or from various transformed explants is well known in the art (Weissbach and Weissbach, *In: Methods for Plant Molecular Biology*, (Eds.), Academic  
 10 Press, Inc. San Diego, CA, (1988), the entirety of which is herein incorporated by reference). This regeneration and growth process typically includes the steps of selection of transformed cells, culturing those individualized cells through the usual stages of embryonic development through the rooted plantlet stage. Transgenic embryos and seeds are similarly regenerated. The resulting transgenic rooted shoots are thereafter planted in  
 15 an appropriate plant growth medium such as soil.

The development or regeneration of plants containing the foreign, exogenous gene that encodes a protein of interest is well known in the art. Preferably, the regenerated plants are self-pollinated to provide homozygous transgenic plants, as discussed before. Otherwise, pollen obtained from the regenerated plants is crossed to seed-grown plants of  
 20 agronomically important lines. Conversely, pollen from plants of these important lines is used to pollinate regenerated plants. A transgenic plant of the present invention containing a desired polypeptide is cultivated using methods well known to one skilled in the art.

There are a variety of methods for the regeneration of plants from plant tissue.  
 25 The particular method of regeneration will depend on the starting plant tissue and the particular plant species to be regenerated.

Methods for transforming dicots, primarily by use of *Agrobacterium tumefaciens*, and obtaining transgenic plants have been published for cotton (U. S. Patent No. 5,004,863, U.S. Patent No. 5,159,135, U.S. Patent No. 5,518,908, all of which the entirety is herein incorporated by reference); soybean (U. S. Patent No. 5,569,834, U. S. Patent No. 5,416,011, McCabe *et al.*, *Biotechnology* 6:923, (1988), Christou *et al.*, *Plant Physiol.*, 87:671-674 (1988), all of which the entirety is herein incorporated by reference); *Brassica* ( U. S. Patent No. 5,463,174, the entirety of which is herein incorporated by reference); peanut (Cheng *et al.*, *Plant Cell Rep.* 15: 653-657 (1996), McKently *et al.*, *Plant Cell Rep.* 14:699-703 (1995), all of which the entirety is herein incorporated by reference); papaya (Yang *et al.*, (1996), the entirety of which is herein incorporated by reference); pea (Grant *et al.*, *Plant Cell Rep.* 15:254-258, (1995), the entirety of which is herein incorporated by reference).

Transformation of monocotyledons using electroporation, particle bombardment, and *Agrobacterium* have also been reported. Transformation and plant regeneration have been achieved in asparagus (Bytebier *et al.*, *Proc. Natl. Acad. Sci. USA* 84:5345, (1987), the entirety of which is herein incorporated by reference); barley (Wan and Lemaux, *Plant Physiol* 104:37, (1994), the entirety of which is herein incorporated by reference); maize (Rhodes *et al.*, *Science* 240: 204, (1988), Gordon-Kamm *et al.*, *Plant Cell*, 2:603, (1990), Fromm *et al.*, *Bio/Technology* 8:833, (1990), Koziel *et al.*, *Bio/Technology* 11:194, (1993), Armstrong *et al.*, *Crop Science* 35:550-557, (1995), all of which the entirety is herein incorporated by reference); oat (Somers *et al.*, *Bio/Technology*, 10:1589, (1992), the entirety of which is herein incorporated by reference); orchardgrass (Horn *et al.*, *Plant Cell Rep.* 7:469, (1988), the entirety of which is herein incorporated by reference); rice (Toriyama *et al.*, *Theor Appl. Genet.* 205:34, (1986); Park *et al.*, *Plant Mol. Biol.*, 32: 1135-1148, (1996); Abedinia *et al.*, *Aust. J. Plant Physiol.* 24:133-141, (1997); Zhang and Wu, *Theor. Appl. Genet.* 76:835, (1988); Zhang *et al.* *Plant Cell Rep.* 7:379, (1988); Battraw and Hall, *Plant Sci.* 86:191-202, (1992); Christou *et al.*,

*Bio/Technology* 9:957, (1991), all of which the entirety is herein incorporated by reference); sugarcane (Bower and Birch, *Plant J.* 2:409, (1992), the entirety of which is herein incorporated by reference); tall fescue (Wang et al., *Bio/Technology* 10:691, (1992), the entirety of which is herein incorporated by reference), and wheat (Vasil et al., *Bio/Technology* 10:667, (1992), the entirety of which is herein incorporated by reference;  
 5 U. S. Patent No. 5,631,152, the entirety of which is herein incorporated by reference.

Assays for gene expression based on the transient expression of cloned nucleic acid constructs have been developed by introducing the nucleic acid molecules into plant cells by polyethylene glycol treatment, electroporation, or particle bombardment

10 (Marcotte, *et al.*, *Nature*, 335: 454-457 (1988), the entirety of which is herein incorporated by reference; Marcotte, *et al.*, *Plant Cell*, 1: 523-532 (1989), the entirety of which is herein incorporated by reference; McCarty, *et al.*, *Cell* 66: 895-905 (1991), the entirety of which is herein incorporated by reference; Hattori, *et al.*, *Genes Dev.* 6: 609-618 (1992), the entirety of which is herein incorporated by reference; Goff, *et al.*, *EMBO J.* 9: 2517-2522 (1990), the entirety of which is herein incorporated by reference).

15 Transient expression systems may be used to functionally dissect gene constructs (*See generally*, Mailga *et al.*, *Methods in Plant Molecular Biology*, Cold Spring Harbor Press (1995)).

Any of the nucleic acid molecules of the present invention may be introduced into  
 20 a plant cell in a permanent or transient manner in combination with other genetic elements such as vectors, promoters enhancers etc. Further any of the nucleic acid molecules of the present invention may be introduced into a plant cell in a manner that allows for over expression of the protein or fragment thereof encoded by the nucleic acid molecule.

25 Cosuppression is the reduction in expression levels, usually at the level of RNA, of a particular endogenous gene or gene family by the expression of a homologous sense construct that is capable of transcribing mRNA of the same strandedness as the transcript



of the endogenous gene (Napoli *et al.*, *Plant Cell* 2: 279-289 (1990), the entirety of which is herein incorporated by reference; van der Krol *et al.*, *Plant Cell* 2: 291-299 (1990), the entirety of which is herein incorporated by reference). Cosuppression may result from stable transformation with a single copy nucleic acid molecule that is homologous to a nucleic acid sequence found with the cell (Prolls and Meyer, *Plant J.* 2:465-475 (1992), the entirety of which is herein incorporated by reference) or with multiple copies of a nucleic acid molecule that is homologous to a nucleic acid sequence found with the cell (Mittlesten *et al.*, *Mol. Gen. Genet.* 244: 325-330 (1994), the entirety of which is herein incorporated by reference). Genes, even though different, linked to homologous promoters may result in the cosuppression of the linked genes (Vaucheret, *C.R. Acad. Sci. III* 316: 1471-1483 (1993), the entirety of which is herein incorporated by reference).

This technique has, for example been applied to generate white flowers from red petunia and tomatoes that do not ripen on the vine. Up to 50% of petunia transformants that contained a sense copy of the chalcone synthase (CHS) gene produced white flowers or floral sectors; this was as a result of the post-transcriptional loss of mRNA encoding CHS (Flavell, *Proc. Natl. Acad. Sci. (U.S.A.)* 91:3490-3496 (1994)), the entirety of which is herein incorporated by reference). Cosuppression may require the coordinate transcription of the transgene and the endogenous gene, and can be reset by a developmental control mechanism (Jorgensen, *Trends Biotechnol.* 8:340-344 (1990), the entirety of which is herein incorporated by reference; Meins and Kunz, In: *Gene Inactivation and Homologous Recombination in Plants* (Paszkowski, J., ed.), pp. 335-348. Kluwer Academic, Netherlands (1994), the entirety of which is herein incorporated by reference).

It is understood that one or more of the nucleic acids of the present invention including those comprising SEQ ID NO:1 through SEQ ID NO:18718 or complement thereof or fragments of either or other nucleic acid molecules of the present invention

may be introduced into a plant cell and transcribed using an appropriate promoter with such transcription resulting in the co-suppression of an endogenous protein.

Antisense approaches are a way of preventing or reducing gene function by targeting the genetic material (Mol *et al.*, *FEBS Lett.* 268: 427-430 (1990), the entirety of which is herein incorporated by reference). The objective of the antisense approach is to use a sequence complementary to the target gene to block its expression and create a mutant cell line or organism in which the level of a single chosen protein is selectively reduced or abolished. Antisense techniques have several advantages over other 'reverse genetic' approaches. The site of inactivation and its developmental effect can be manipulated by the choice of promoter for antisense genes or by the timing of external application or microinjection. Antisense can manipulate its specificity by selecting either unique regions of the target gene or regions where it shares homology to other related genes (Hiatt *et al.*, *In Genetic Engineering*, Setlow (ed.), Vol. 11, New York: Plenum 49-63 (1989), the entirety of which is herein incorporated by reference).

The principle of regulation by antisense RNA is that RNA that is complementary to the target mRNA is introduced into cells, resulting in specific RNA:RNA duplexes being formed by base pairing between the antisense substrate and the target mRNA (Green *et al.*, *Annu. Rev. Biochem.* 55: 569-597 (1986), the entirety of which is herein incorporated by reference). Under one embodiment, the process involves the introduction and expression of an antisense gene sequence. Such a sequence is one in which part or all of the normal gene sequences are placed under a promoter in inverted orientation so that the 'wrong' or complementary strand is transcribed into a noncoding antisense RNA that hybridizes with the target mRNA and interferes with its expression (Takayama and Inouye, *Crit. Rev. Biochem. Mol. Biol.* 25: 155-184 (1990), the entirety of which is herein incorporated by reference). An antisense vector is constructed by standard procedures and introduced into cells by transformation, transfection, electroporation, microinjection, or by infection, etc. The type of transformation and choice of vector will determine

whether expression is transient or stable. The promoter used for the antisense gene may influence the level, timing, tissue, specificity, or inducibility of the antisense inhibition.

It is understood that protein synthesis activity in a plant cell may be reduced or depressed by growing a transformed plant cell containing a nucleic acid molecule whose non-transcribed strand encodes a protein or fragment thereof.

Antibodies have been expressed in plants (Hiatt *et al.*, *Nature* 342:76-78 (1989), the entirety of which is herein incorporated by reference; Conrad and Fielder, *Plant Mol. Biol.* 26: 1023-1030 (1994), the entirety of which is herein incorporated by reference). Cytoplasmic expression of a scFv (single-chain Fv antibodies) has been reported to delay infection by artichoke mottled crinkle virus. Transgenic plants that express antibodies directed against endogenous proteins may exhibit a physiological effect (Philips *et al.*, *EMBO J.* 16: 4489-4496 (1997), the entirety of which is herein incorporated by reference; Marion-Poll, *Trends in Plant Science* 2: 447-448 (1997), the entirety of which is herein incorporated by reference). For example, expressed anti-abscisic antibodies reportedly result in a general perturbation of seed development (Philips *et al.*, *EMBO J.* 16: 4489-4496 (1997)).

Antibodies that are catalytic may also be expressed in plants (abzymes). The principle behind abzymes is that since antibodies may be raised against many molecules, this recognition ability can be directed toward generating antibodies that bind transition states to force a chemical reaction forward (Persidas, *Nature Biotechnology* 15:1313-1315 (1997), the entirety of which is herein incorporated by reference; Baca *et al.*, *Ann. Rev. Biophys. Biomol. Struct.* 26:461-493 (1997), the entirety of which is herein incorporated by reference). The catalytic abilities of abzymes may be enhanced by site directed mutagenesis. Examples of abzymes are, for example, set forth in U.S. Patent No: 5,658,753; U.S. Patent No. 5,632,990; U.S. Patent No. 5,631,137; U.S. Patent 5,602,015; U.S. Patent No. 5,559,538; U.S. Patent No. 5,576,174; U.S. Patent No. 5,500,358; U.S.

Patent 5,318,897; U.S. Patent No. 5,298,409; U.S. Patent No. 5,258,289 and U.S. Patent No. 5,194,585, all of which are herein incorporated in their entirety.

It is understood that any of the antibodies of the present invention may be expressed in plants and that such expression can result in a physiological effect. It is also understood that any of the expressed antibodies may be catalytic.

In addition to the above discussed procedures, practitioners are familiar with the standard resource materials which describe specific conditions and procedures for the construction, manipulation and isolation of macromolecules (e.g., DNA molecules, plasmids, etc.), generation of recombinant organisms and the screening and isolating of clones, (see for example, Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Press (1989); Mailga *et al.*, *Methods in Plant Molecular Biology*, Cold Spring Harbor Press (1995), the entirety of which is herein incorporated by reference; Birren *et al.*, *Genome Analysis: Analyzing DNA*, 1, Cold Spring Harbor, New York, the entirety of which is herein incorporated by reference).

The nucleotide sequence provided in SEQ ID NO:1, through SEQ ID NO:18718 or fragment thereof, or complement thereof, or a nucleotide sequence at least 90% identical, preferably 95%, identical even more preferably 99% or 100% identical to the sequence provided in SEQ ID NO:1 through SEQ ID NO:18718 or fragment thereof, or complement thereof, can be "provided" in a variety of mediums to facilitate use fragment thereof. Such a medium can also provide a subset thereof in a form that allows a skilled artisan to examine the sequences.

In one application of this embodiment, a nucleotide sequence of the present invention can be recorded on computer readable media. As used herein, "computer readable media" refers to any medium that can be read and accessed directly by a computer. Such media include, but are not limited to: magnetic storage media, such as floppy discs, hard disc, storage medium, and magnetic tape; optical storage media such as CD-ROM; electrical storage media such as RAM and ROM; and hybrids of these

categories such as magnetic/optical storage media. A skilled artisan can readily appreciate how any of the presently known computer readable mediums can be used to create a manufacture comprising computer readable medium having recorded thereon a nucleotide sequence of the present invention.

5 As used herein, "recorded" refers to a process for storing information on computer readable medium. A skilled artisan can readily adopt any of the presently known methods for recording information on computer readable medium to generate media comprising the nucleotide sequence information of the present invention. A variety of data storage structures are available to a skilled artisan for creating a computer readable  
 10 medium having recorded thereon a nucleotide sequence of the present invention. The choice of the data storage structure will generally be based on the means chosen to access the stored information. In addition, a variety of data processor programs and formats can be used to store the nucleotide sequence information of the present invention on computer readable medium. The sequence information can be represented in a word processing  
 15 text file, formatted in commercially-available software such as WordPerfect and Microsoft Word, or represented in the form of an ASCII file, stored in a database application, such as DB2, Sybase, Oracle, or the like. A skilled artisan can readily adapt any number of data processor structuring formats (e.g. text file or database) in order to obtain computer readable medium having recorded thereon the nucleotide sequence  
 20 information of the present invention.

By providing one or more of nucleotide sequences of the present invention, a skilled artisan can routinely access the sequence information for a variety of purposes. Computer software is publicly available which allows a skilled artisan to access sequence  
 25 demonstrate how software which implements the BLAST (Altschul *et al.*, *J. Mol. Biol.* 215:403-410 (1990)) and BLAZE (Brutlag *et al.*, *Comp. Chem.* 17:203-207 (1993), the entirety of which is herein incorporated by reference) search algorithms on a Sybase

system can be used to identify open reading frames (ORFs) within the genome that contain homology to ORFs or proteins from other organisms. Such ORFs are protein-encoding fragments within the sequences of the present invention and are useful in producing commercially important proteins such as enzymes used in amino acid

5 biosynthesis, metabolism, transcription, translation, RNA processing, nucleic acid and a protein degradation, protein modification, and DNA replication, restriction, modification, recombination, and repair.

The present invention further provides systems, particularly computer-based systems, which contain the sequence information described herein. Such systems are

10 designed to identify commercially important fragments of the nucleic acid molecule of the present invention. As used herein, "a computer-based system" refers to the hardware means, software means, and data storage means used to analyze the nucleotide sequence information of the present invention. The minimum hardware means of the computer-

15 based systems of the present invention comprises a central processing unit (CPU), input means, output means, and data storage means. A skilled artisan can readily appreciate that any one of the currently available computer-based system are suitable for use in the present invention.

As indicated above, the computer-based systems of the present invention comprise a data storage means having stored therein a nucleotide sequence of the present

20 invention and the necessary hardware means and software means for supporting and implementing a search means. As used herein, "data storage means" refers to memory that can store nucleotide sequence information of the present invention, or a memory access means which can access manufactures having recorded thereon the nucleotide sequence information of the present invention. As used herein, "search means" refers to

25 one or more programs which are implemented on the computer-based system to compare a target sequence or target structural motif with the sequence information stored within the data storage means. Search means are used to identify fragments or regions of the

sequence of the present invention that match a particular target sequence or target motif. A variety of known algorithms are disclosed publicly and a variety of commercially available software for conducting search means are available and can be used in the computer-based systems of the present invention. Examples of such software include, but  
 5 are not limited to, MacPattern (EMBL), BLASTIN and BLASTIX (NCBIA). One of the available algorithms or implementing software packages for conducting homology searches can be adapted for use in the present computer-based systems.

The most preferred sequence length of a target sequence is from about 10 to 100 amino acids or from about 30 to 300 nucleotide residues. However, it is well recognized  
 10 that during searches for commercially important fragments of the nucleic acid molecules of the present invention, such as sequence fragments involved in gene expression and protein processing, may be of shorter length.

As used herein, "a target structural motif," or "target motif," refers to any rationally selected sequence or combination of sequences in which the sequences or  
 15 sequence(s) are chosen based on a three-dimensional configuration which is formed upon the folding of the target motif. There are a variety of target motifs known in the art. Protein target motifs include, but are not limited to, enzymatic active sites and signal sequences. Nucleic acid target motifs include, but are not limited to, promoter sequences, cis elements, hairpin structures and inducible expression elements (protein binding  
 20 sequences).

Thus, the present invention further provides an input means for receiving a target sequence, a data storage means for storing the target sequences of the present invention sequence identified using a search means as described above, and an output means for outputting the identified homologous sequences. A variety of structural formats for the  
 25 input and output means can be used to input and output information in the computer-based systems of the present invention. A preferred format for an output means ranks fragments of the sequence of the present invention by varying degrees of homology to the

target sequence or target motif. Such presentation provides a skilled artisan with a ranking of sequences which contain various amounts of the target sequence or target motif and identifies the degree of homology contained in the identified fragment.

A variety of comparing means can be used to compare a target sequence or target motif with the data storage means to identify sequence fragments sequence of the present invention. For example, implementing software which implement the BLAST and BLAZE algorithms (Altschul *et al.*, *J. Mol. Biol.* 215:403-410 (1990)) can be used to identify open frames within the nucleic acid molecules of the present invention. A skilled artisan can readily recognize that any one of the publicly available homology search programs can be used as the search means for the computer-based systems of the present invention. Having now generally described the invention, the same will be more readily understood through reference to the following examples which are provided by way of illustration, and are not intended to be limiting of the present invention, unless specified.

### Example 1

The cDNA library of the present invention designated LIB9, is prepared from *Arabidopsis thaliana*, Columbia ecotype, leaf tissue. Wild type *Arabidopsis thaliana* seeds are planted in commonly used planting pots and grown in an environmental chamber. Leaf blades are cut with sharp scissors at seven weeks after planting. The tissue is immediately frozen in liquid nitrogen and stored at -80°C until total RNA extraction. SEQ ID NO: 1 to SEQ ID NO: 1425 are from LIB9.

The cDNA library of the present invention designated LIB22, is prepared from *Arabidopsis thaliana* Columbia ecotype root tissue. Wild type *Arabidopsis thaliana* seeds are planted in commonly used planting pots and grown in an environmental chamber. After 5-6 weeks the plants are in the reproductive growth phase. Stems are bolting from the base of the plants. After 7 weeks, more stems and floral buds appear, and a few flowers are starting to open. Roots of 7-week old plants from pots are rinsed intensively



with tap water to wash away dirt, and briefly blotted by paper towel to take away free water. The tissues are immediately frozen in liquid nitrogen and stored at -80°C until use. SEQ ID NO:1426 through SEQ ID NO: 5331 are from LIB22.

The cDNA library of the present invention designated LIB23, is prepared from  
 5 *Arabidopsis thaliana*, Columbia ecotype, stem tissue. Wild type *Arabidopsis thaliana* seeds are planted in commonly used planting pots and grown in an environmental chamber. Stems are collected seven to eight weeks after planting by cutting the stems from the base and cutting the top of the plant to remove the floral tissue. The tissue is immediately frozen in liquid nitrogen and stored at -80°C until total RNA extraction.

10 SEQ ID NO: 5332 through SEQ ID NO: 6413 are from LIB23.

The cDNA library of the present invention designated LIB24, is prepared from  
*Arabidopsis thaliana*, Columbia ecotype, flower bud tissue. Wild type *Arabidopsis thaliana* seeds are planted in commonly used planting pots and grown in an environmental chamber. Flower buds are green and unopened and are harvested about  
 15 seven weeks after planting. The tissue is immediately frozen in liquid nitrogen and stored at -80°C until total RNA extraction. SEQ ID NO: 6414 through SEQ ID NO: 11364 are from LIB24.

The cDNA library of the present invention designated LIB25, is prepared from  
*Arabidopsis thaliana*, Columbia ecotype, open flower tissue. Wild type *Arabidopsis thaliana* seeds are planted in commonly used planting pots and grown in an environmental chamber. Flower are completely opened with all parts of floral structure observable, but no siliques are appearing, and are harvested about seven weeks after  
 20 planting. The tissue was immediately frozen in liquid nitrogen and stored at -80°C until total RNA extraction. SEQ ID NO: 11365 through SEQ ID NO: 16980 are from LIB25.

25 The cDNA library of the present invention designated LIB35, is prepared from *Arabidopsis thaliana* Columbia ecotype leaf tissue. Wild type *Arabidopsis thaliana* seeds are planted in commonly used planting pots and grown in an environmental

chamber. After 5-6 weeks the plants are in the reproductive growth phase. Stems are bolting from the base of the plants. After 7 weeks, more stems and floral buds appear and a few flowers are starting to open. Leaf blades are collected by cutting with sharp scissors. LIB35 is normalized by a PCR-based protocol. The tissues are immediately  
 5 frozen in liquid nitrogen and stored at -80°C until use. SEQ ID NO: 16981 through SEQ ID NO: 18589 are from LIB35.

The cDNA library of the present invention designated LIB146, is prepared from *Arabidopsis thaliana*, Columbia ecotype, immature seed tissue. Wild type *Arabidopsis thaliana* seeds are planted in commonly used planting pots and grown in an  
 10 environmental chamber. At approximately 7-8 weeks of age, the seeds are harvested. The seeds range in maturity from the smallest seeds that could be dissected from silques to just before starting to turn yellow in color. The tissue is immediately frozen in liquid nitrogen and stored at -80°C until total RNA extraction. SEQ ID NO: 18590 through SEQ ID NO: 18718 are from LIB146.

## Example 2

The stored RNA is purified using Trizol reagent from Life Technologies (Gibco BRL, Life Technologies, Gaithersburg, Maryland U.S.A.), essentially as recommended by the manufacturer. Poly A+ RNA (mRNA) is purified using magnetic oligo dT beads  
 20 essentially as recommended by the manufacturer (Dynabeads, Dynal Corporation, Lake Success, New York U.S.A.).

Construction of plant cDNA libraries is well-known in the art and a number of cloning strategies exist. A number of cDNA library construction kits are commercially available. The Superscript™ Plasmid System for cDNA synthesis and Plasmid Cloning  
 25 (Gibco BRL, Life Technologies, Gaithersburg, Maryland U.S.A.) is used, following the conditions suggested by the manufacturer.

### Example 3

The cDNA libraries are plated on LB agar containing the appropriate antibiotics for selection and incubated at 37° for a sufficient time to allow the growth of individual colonies. Single colonies are individually placed in each well of a 96-well microtiter plates containing LB liquid including the selective antibiotics. The plates are incubated overnight at approximately 37°C with gentle shaking to promote growth of the cultures. The plasmid DNA is isolated from each clone using Qiaprep plasmid isolation kits, using the conditions recommended by the manufacturer (Qiagen Inc., Santa Clara, California U.S.A.).

The template plasmid DNA clones are used for subsequent sequencing. For sequencing the cDNA libraries of LIB9, LIB22, LIB23, LIB24, LIB25, LIB35, and LIB146, a commercially available sequencing kit, such as the ABI PRISM dRhodamine Terminator Cycle Sequencing Ready Reaction Kit with AmpliTaq® DNA Polymerase, FS, is used under the conditions recommended by the manufacturer (PE Applied Biosystems, Foster City, CA). The ESTs of the present invention are generated by sequencing initiated from the 5' end of each cDNA clone.

A number of sequencing techniques are known in the art, including fluorescence-based sequencing methodologies. These methods have the detection, automation and instrumentation capability necessary for the analysis of large volumes of sequence data.

Currently, the 377 DNA Sequencer (Perkin-Elmer Corp., Applied Biosystems Div., Foster City, CA) allows the most rapid electrophoresis and data collection. With these types of automated systems, fluorescent dye-labeled sequence reaction products are detected and data entered directly into the computer, producing a chromatogram that is subsequently viewed, stored, and analyzed using the corresponding software programs.

These methods are known to those of skill in the art and have been described and reviewed (Birren *et al.*, *Genome Analysis: Analyzing DNA*,<sup>1</sup> Cold Spring Harbor, New York, the entirety of which is herein incorporated by reference).



We claim:

1. A substantially purified nucleic acid molecule that encodes a *Arabidopsis thaliana* protein or fragment thereof comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 1425.

5

2. A substantially purified *Arabidopsis thaliana* protein or fragment thereof, wherein said *Arabidopsis thaliana* protein is encoded by a nucleic acid molecule that comprises a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 1425.

10

3. A transformed plant having a nucleic acid molecule which comprises:

- (a) an exogenous promoter region which functions in a plant cell to cause the production of a mRNA molecule;
- (b) a structural nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 1425 or complements thereof;
- (c) a 3' non-translated sequence that functions in said plant cell to cause termination of transcription and addition of polyadenylated ribonucleotides to a 3' end of said mRNA molecule.

15

4. The transformed plant according to claim 3, wherein said structural nucleic acid molecule is a complement of any of the nucleic acid sequences of SEQ ID NO: 1 through SEQ ID NO: 1425.

20

5. The transformed plant according to claim 4, wherein said plant is soybean or maize.

6. The transformed plant according to claim 4, wherein said plant is maize.

7. The transformed plant according to claim 4, wherein said plant is soybean.

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**Abstract**

Expressed Sequence Tags (ESTs) isolated from *Arabidopsis thaliana* are disclosed. The ESTs provide a unique molecular tool for the targeting and isolation of novel genes for plant protection and improvement. The disclosed ESTs have utility in the development of new strategies for understanding critical plant developmental and metabolic pathways. The disclosed ESTs have particular utility in isolating genes and promoters, identifying and mapping the genes involved in developmental and metabolic pathways, and determining gene function. Sequence homology analyses using the ESTs provided in the present invention, will result in more efficient gene screening for desirable agronomic traits. An expanding database of these select pieces of the plant genomics puzzle will quickly expand the knowledge necessary for subsequent functional validation, a key limitation in current plant biotechnology efforts.

# Combined Declaration and Power of Attorney for Patent Application

Docket Number: 38-21(15404)R

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am an original, first and joint inventor of the subject matter that is claimed and for which a patent is sought on the invention entitled NUCLEIC ACID MOLECULES AND OTHER MOLECULES ASSOCIATED WITH PLANTS, the specification of which is filed herewith unless the following box is checked:

☐ was filed on \_\_\_\_\_;  
as United States Application Number \_\_\_\_\_; and  
was amended on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below, and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Claimed

☐ Yes ☐ No

\_\_\_\_\_  
(Application No.)

\_\_\_\_\_  
(Country)

\_\_\_\_\_  
(Day/Month/Year Filed)

☐ Yes ☐ No

\_\_\_\_\_  
(Application No.)

\_\_\_\_\_  
(Country)

\_\_\_\_\_  
(Day/Month/Year Filed)

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below.

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:



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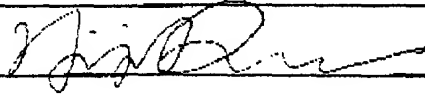
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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the

like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor	Timothy W. Conner	
Inventor's signature		Date
Residence	Wildwood, Missouri USA	
Citizenship	USA	
Post Office Address	17434 Radcliffe Place Dr. Wildwood, Missouri 63017	
Full name of second inventor	Yijun G. Ruan	
Second inventor's signature		Date 6/14/99
Residence	1628 Rio Grande Street, Davis, CA 95616, USA	
Citizenship	P.R.C., US permanent residence	
Post Office Address	1628 Rio Grande Street, Davis, CA 95616	
Full name of third inventor		
Third inventor's signature		Date
Residence		
Citizenship		
Post Office Address		

## Combined Declaration and Power of Attorney for Patent Application

Docket Number: 38-21(15404)B

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am an original, first and joint inventor of the subject matter that is claimed and for which a patent is sought on the invention entitled NUCLEIC ACID MOLECULES AND OTHER MOLECULES ASSOCIATED WITH PLANTS, the specification of which is filed herewith unless the following box is checked:

☐ was filed on \_\_\_\_\_;  
as United States Application Number \_\_\_\_\_; and  
was amended on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below, and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Claimed

☐ Yes ☐ No

(Application No.)

(Country)

(Day/Month/Year Filed)

☐ Yes ☐ No

(Application No.)

(Country)

(Day/Month/Year Filed)

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below.

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

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Mark R. Buscher, Reg. No. 35,006  
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Vernon Randall Gard, Reg. No. 33,886  
Alan M. Grimaldi, Reg. No. 26,599  
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Richard H. Kjeldgaard, Reg. No. 30,186  
Joseph P. Lavelle, Reg. No. 31,036  
David R. Marsh, Reg. No. 41,408  
Joseph A. Micallef, Reg. No. 39,772  
Erik B. Milch, Reg. No. 42,887  
Anthony D. Miller, Reg. No. 34,394  
Karen L. Nicastro, Reg. No. 35,968  
Bradley J. Olson, Reg. No. 40,750  
Andrew Y. Piatnicia, Reg. No. 40,772  
Andrea G. Reister, Reg. No. 36,253  
Stephen J. Rosenman, Reg. No. 29,209  
Timothy L. Scott, Reg. No. 37,931  
Anthony W. Shaw, Reg. No. 30,104  
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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the

like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor	Timothy W Conner	
Inventor's signature	<i>Timothy W. Conner</i>	Date 6/7/99
Residence	Wildwood, Missouri USA	
Citizenship	USA	
Post Office Address	17434 Radcliffe Place Dr. Wildwood, Missouri 63025	
Full name of second inventor	Yijun G. Ruan	
Second inventor's signature		Date
Residence		
Citizenship		
Post Office Address		
Full name of third inventor		
Third inventor's signature		Date
Residence		
Citizenship		
Post Office Address		

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Ruan, Yijun G.

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atccgcgttt gcgttctctc taaccgctcc aatttcatac gggtc 405

<210> 22  
<211> 391  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-08-Q1-B1-A6  
<400> 22

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cctctacgtt agcgctcgtga aagctcgaga tcttctgtc atggatgttt ccggtanctt 120

agatccttac gttgaagtga agctagggaa ctacanaggt ttaacgangc atttggagaa 180  
gaattcgaat ccgatctgga aacagatctt tgccttctct aaaganagat tanaatcgan 240  
tcttcttgaa gtcactgtga aagataaaga tcntttgact aaaagacgaa ttttcggttg 300  
gaanagttca taatgatnct cactgaagtt ccctccttaa naggttcctc caagatantc 360  
cctttgggct ccacaaagt gtaanaaggt t 391

<210> 23  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-08-Q1-B1-C2

<400> 23

agctcaaacc tttcaggttc gaantgatga aaaaatattt ggcagtttgg atttgacggt 60  
ctctattgct agaagaacta cagatgaagt gaccaccaag aagcccttca tacatcacta 120  
tcatgggtggg gcagtggcgg ataatatcat cttcaaaggt gaattgctg attggccctc 180  
agatgatggt ttgaaagaca gagaacgttt ttacgtgatt atgaatgaat cagagtggcg 240  
agctactgct tggattctct ggtattggga actgtacttg tgcacatgat aagttcatca 300  
ctaatactga tctgtcccg ttgaataatg agaaagtggc gatagaaact aataatggag 360  
aagcncgtgt gtatgaaaga ctcnaaggca aaagtgcaaa tgtctacata t 411

<210> 24  
<211> 406  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-08-Q1-B1-C5

<400> 24

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ttttatcttt tagttcccca aagtttttga aaaggtcaaa atgtcaatgg agaagccacc 120  
tttggcctcc ggtttagctc gaacacgata ggagcagcta tatgagacgg ttgcagcaga 180  
cataagggtca cctcacggct ccatggacgc taatgggtgtg cctgcgacgg ctccagcagc 240



cgttggagga ggaggaacgt tgtcgaggaa atcaagccgg aggttgatgg ggatgtctcc 300  
 ggggaggagt agcggcgccg gaacacacat aaggaagtct aggagcgctc agcttaagct 360  
 cgagctanan gaatgagtag cggcgcaact ttgagccgtg cgtcta 406

<210> 25  
 <211> 393  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-08-Q1-B1-C6

<400> 25

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 tttcttagta acccaaata atggcaggta tcaangtttt cggacacca gcttccattg 120  
 ccacnaggag agtcctcatc gccctccacg agaaaaacct cgactttgag ctcgttcatg 180  
 tcgaacnaa agacggtgag cacaagaagg agcctttcct ctcccgcnac ccttttggtc 240  
 aggttccagc ctttgaagat ggagacctca agctcttcga atcaagagcg attactcant 300  
 acataagctc acngatntga aaaccangga accnancctt ctcnngnccg acnccaagac 360  
 atatctcatt cgcacatg ccatnggaat caa 393

<210> 26  
 <211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-08-Q1-B1-C8

<400> 26

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 ttcgacgcag aggagcttac caagtggctt ttatacagag cagtcacgcg cgagttcgta 180  
 gccactctcc ttttcttgta cgtcaccgtt ttaactgtca ttggttacia gattcagtc 240  
 gacacanaag ccggtggagt tgactgcggc ggcgtcgga tccttggcat cgcgtgggct 300  
 tttggtggca tgatcttcat ccttgtctac tgcaccgccg gtatctcaag gtggcacata 360

ancctgcggt naactttggg ttggtcctaa ccccggaagg taccgccgaa

409

<210> 27  
<211> 412  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-08-Q1-B1-D1  
  
<400> 27

gagattttgc agagatgtcg agacgagcaa tgggtgataaa gatgcccaata cttatgatac 60  
tgatttcatac aatgggtgatg acgatgggtcg agtcttcgag atcagttaat aatgggtcatg 120  
acgattctga gatcttacga agacacttgc tcactaatgg cctcggagtc actcctccca 180  
tgggggtggaa tagctggaac catttttagct gcaacataga tgaaaaaatg atcaaagaaa 240  
ctgctgatgc tttggttacc actggcctct ctaagcttgg ctacaactat gttaacatcg 300  
atgattgctg ggctgaaatt tctcgtgaca gcaaggggaag tctggtgcca aagaagtcaa 360  
ctttcccttc tggaattaaa gccggttgcc ggattangtt cacaagtaaa ag 412

<210> 28  
<211> 407  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-08-Q1-B1-D10  
  
<400> 28

tgcagggttta gcttcatctg aaactgcaa tcccgttat ggaaccgatg gatccaagaa 60  
aagtgagtga ttatacaaac catgatgggtg gtttttgatc gccggtatta cactttgttt 120  
ggtttgcagc tatcagattc tcaacatcat ggcttatttt ggacgagtta ggcagtatct 180  
taatagtaac aaagcattag tttttgtact tcttaagtta aaagcttaga acaaaataac 240  
actgttgttt tgttctaagc ttttaactta agaagtacaa aacaacagtg ttattttcta 300  
taccaagaca caaaaactgt gtcgttgtaa taacacttac cataacattt tctttcagt 360  
tatgtttaaa gccgtttata aggggttaaaa aaaaaaacna aaaaaag 407

<210> 29

<211> 431  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-08-Q1-B1-D2

<400> 29

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ctcgagccaa attccaccgt ctcttatata ttctttnnnn nnnnnnnnnn nnnnnnnnnn 60
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnttcttgcc 120
atggccacac atagtctctc cttcttcttc agagttcttc tctctctctt tcttactctc 180
tcagagagaa ttaaagggca aggtgtggga atcaactacg gccaaatagc aaacaacctc 240
ccatctccgg caagagtcgc cgtgctcctt cgatcactaa aacatcacaa agaagtaaaa 300
ctccaacgaa gcagattcaa acgtctctct ctctctctca aaactcacaa agttagatatt 360
caatgatnng ttttaagnaaa cgaagtatcc ttcaaaacat gtnaacagat tcaaccaaag 420
ctcaaggant g 431
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<210> 30  
 <211> 431  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-08-Q1-B1-D4

<400> 30

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cctcttcca ccatgtcaaa ctcttcaact ttctctccaa tctcagaggg gctaatagct 120
atagatctcc cagaacagca aaatgagttc aagggtggcct atctgtttc cccagcatta 180
ccgagtaaga attatgagaa ttcagaagac tctgtcagct ggctaagtgt gccattcctc 240
aacttctacc gttccattaa caagaanttt cctgcttaac tctcagaaag ccttgataca 300
nttgggcgaa gcatagcccc aacctaaatt tcanccttta agagaaggca gaacntcaan 360
ggtgggacca angntacttc tgccccgtaa ggcttaaatt anattggttg ttnccggtta 420
atgaagaatg a 431
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<210> 31

<211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-08-Q1-B1-E1

<400> 31

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 ttagtgcgat aggagctctt gaaggagcac attttctagc cactaaagag cttgttagcc 120  
 tcagtgagca gcagctcgta gattgtgacc atgagtgtga tccagcacia gccaattcat 180  
 gtgattctgg ttgcagtgga ggactaatga acaacgcttt tgagtacgct cttaaagctg 240  
 gtggctctaat gaaggaagag gactatcctt atacaggacg tgaccatacc gcntgtaagt 300  
 tcgacaagag caagattggt gcnantgtgt caaacttcag cgttgtcncc tccngatgaa 360  
 gaacaaatcg ctgctaattcc aatccaacat ggacctccaa ctattgctat ca 412

<210> 32  
 <211> 382  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-08-Q1-B1-E10

<400> 32

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 cacggccatc gagcatcgtc gcaatgagag gactaaaggc gtcaatggtc ttgacaagat 120  
 catcatccgc gaccgtcgtg gccgatctgc tgaggtttac ttgtatggag gtcaagtcag 180  
 ttcttggaat aatgagaatg gagaggagtt acttggtatg agtagcaagg ctatattcca 240  
 gcctccaaca ccgattcgtg gaggaattcc agtattgttt ccgcaatata gtaacaccgg 300  
 tccacttccc tcacatggat ttgtaagaca gaggttctgg gangttttaga ctaaancaac 360  
 tccttttgcca acaatttcca aa 382

<210> 33  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-08-Q1-B1-E3

<400> 33

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cgactgttat taataattaa ttcgttaatg acgcaccgtt agtcaactcc gcttcgtatt 120  
aattactcct ccgatctctt tcttattctt ctccggcgac acttcccttg cttctccctc 180  
ttaggactct ctctacgaat ctgtaagctt caaattctta cgccacactc cgagattcgc 240  
ttctgattat tgtatgaatt tttgagctcc aagggattca ctgccatgta tttaatgctg 300  
gctaaagctt gaaaggaag taatgggatc aacaataaag ttccttgctt tgtnatttaa 360  
cctgatttga gaataaaca atgggaaaag catcaggctg cctccggttc tcctgg 416

<210> 34  
<211> 454  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-06-Q1-B1-A6

<400> 34

naccacgcg tacataaact cggaattcgg ctcgagccgg gattgaagga gtttaaaatc 60  
ttcaacaaca agttaaccgg agaaatacct gcagagattg gagttcattc aaagctggag 120  
agattcgaag tttcggagaa tcagttaacc ggaaagttac cggaaaattt gtgcaaaggt 180  
ggtaaacttc aaggagtggg tgtgtactca aacaatctta ccggagaaat ccctgagtcg 240  
ctcggagatt gtggaacgct cttgactgtt cagttacaga acaatgactt ctccggcaag 300  
tttccttctc ggatctggga atgcttcaag tatgtataag tctacangtg agtaacaact 360  
cattcaccgg gagagttacc gggagaatgt tgcttgggaa taagtcnaag gatcgangat 420  
tgataacaat cgattttccg gtgagattcc gaan 454

<210> 35  
<211> 455  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-06-Q1-B1-B1

<400> 35

ccgacncgta cgtaaactca agaattcggc tcgaggccaa aacgtcaaga tgctaacaac 60

ccttgtagtc taaccactcc caagatttaa gaattttctt acttttggtc taagttttgt 120

tgagaaaaag atgcatccga tcttcgatgc catccttcaa aatgaccttc cagcttttct 180

tggtttggtg gaagcgagag aatcttccct ggaggagaga agcgaggaac agaacaccaa 240

caacacgggt ttgcacgtag ctgcaaagct cggtcaccga gaactggtcg ccaagattat 300

tgagctccga ctttcccttc tctcttcccg taacgcgtac ggagacacac ctttgcatct 360

tgctgctctt cttgggagac gtaaacaatag ttatgcagat gttagacact ggattggaac 420

tatattccgc acgcaataac aagaacacaaa cacct 455

<210> 36

<211> 489

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-06-Q1-B1-B2

<400> 36

atgatcttnt ggaggtcaga agagaggagn cgtcgngncg accccgtacg tacaactaaa 60

gcattcggct cgagtggaag tgtattccga tgagattaga attggttcaa gaacagatta 120

nagccacggt gaatgagtta aagacaatgc ctaatggagg atgatgcata aggaaagact 180

acaatggggt ctttaagtta tgagaaaatg atgaagaaag attatgatgg tgaggatatag 240

tattagcaaa agtaataatc ttaatgaaaa tttctgatgg tgatgaaatc ttttttaggg 300

ttttagtatt tttttttctt gattgaatct ttttttaatt ttgtcgatta ggagtgaata 360

acctttgttc ttagctgata aattatagtt tttggtaaag ttcaaaaanna aaaaaaaact 420

cttttggtcc aattaanaan gtttttttgg tgtgangcat ataaaaatng atattacaca 480

atccaatgg 489

<210> 37

<211> 461

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-06-Q1-B1-B3

<400> 37

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ggtcttgCGT ctgCGTggag gtatgcagat cttCGTgaag actctcaccg gaaagaccat 120
cacnttggag gtggagagtt ctgacaccat tgataacgtg aaagccaaga tccaggacaa 180
agagggTatc ccaccggacc agcagagatt gatcttcgcc ggaaagcaac ttgaagatgg 240
aagaactttg gctgactaca acattcagaa ggagtccaca cttcacttgg tcttgCGTct 300
gcgtggaggt atgcagatct tcgtgaagac tctcaccgga aagactatca ctttggaggt 360
agagagctct gacancaatt gacaacgttg aaggccaaag attcaaggat aanggaaagg 420
aatccctccg ggaccaagca naaggttgat cttttgcccg g 461
  
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<210> 38  
 <211> 390  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-06-Q1-B1-C2

<400> 38

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ctcGagcGac gacgacgacg gagatagccg taatcttaga cataataata ataacaattc 60
gagtGaccaa attgagataa ttacaacaga ccaaacagat gataaaacaa aaccaatctt 120
ctttgatttc atgagaaaag aaagaacaac agatttgaac cttttgccga gctctccttc 180
ttccgatcat gcttcaagtG gagtcacgac ggagatcttc tcttcttcCG atgaagagac 240
cagtagttgc aatagtttca gatgaaatct ttaatttaat tttaatgttg actatcttaa 300
taagttatta tagttttata ttaatacgac tctccttcct ttttaatcca atttttactt 360
gaaaacgaaa aanannaaaa aaaaaaaggg 390
  
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<210> 39  
 <211> 461  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-06-Q1-B1-A4

<400> 39

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cggcgaggat tttatccgga atcggacaat ctaacggtaa taacggagga gaagcgattc 120  
cgtttggatc gtttgagtgg atcacttacg ccggaatata ttgtttcctc gtactcttcg 180  
ccgggattat gtctgggtctt actttgggac ttatgtctct tgggtcttgte gagcttgaga 240  
ttcttcaacg tagtggtact cctaatagaga agaaacaagc cgctgcgatt tttccggttg 300  
ttcagaaaca gcatcagctt ttaatgacac tgcttctgtg taatgctatg gctatggagg 360  
ggcttccta taatatttgg gataagttaa tcantgaaat acgttgcgaa taancctttc 420  
tgtcacattc gttcttgctt tccggtgaag gttattcccc a 461

<210> 40

<211> 470

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-06-Q1-B1-C7

<400> 40

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aaagaacctg gtaccgagag tgctgatgtg tctttacacc aattagctga tatccagccc 120  
gggccatcca ttttggttga tcaaatggat actgaaaaat ccaaagaacc tgggtaccgag 180  
agtgtgatg tgtctttaca ccaattagct gatatccagc cggggccatc cattttggtt 240  
gatcaaattg atactgaaga attcaaaaat cctgatgtgt ctttacacca attagctgat 300  
attgagccct cactgtctat ttcagctgtg caaaagaata ttgaggataa ggatcaaagt 360  
cacgttgaaa ctgctgggat ctgagttagt tgatgtctct gccgaatgtt caacagaacc 420  
tcaagttcaa ttaccgccat cttcagagcc agtgggaaga tatgcacgtt 470

<210> 41

<211> 423

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-06-Q1-B1-D2



<400> 41

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gccgccggta acatttcccg gcgacaaaac ttctctannc ncaccattcc tccatcgtaa 120

tctctaaatt cttctccatt ctcttcttcc tcccgatcat ctcgagctct tcgtgagaga 180

ttatgtgatt atgtaatcgt tgttgctgta gaagacgac tctaacaact gattccttca 240

tcacacactt cgctagattt gtaattttca gagcttgaga tgttggtatc taacctcaac 300

gctgattctc ccgagtcgac tcagtacggn ggtgactcat acttagatng ggaagacatc 360

agacaaatcc ggccgggaat cnaattggaa naatcccggt aaatcgaagt cgtcangtta 420

aca 423

<210> 42

<211> 422

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-06-Q1-B1-D4

<400> 42

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gtccttggac gaaacgcttg tctgtagaga atagataact agatatgaag aaactctttg 120

gttatgtgtt caaaacagac atgaagcaat agagaagcgt ccttttggat ggagaaatct 180

ccccaggta tatcatcttt gccataaagt ggctttgttt caactcaaaa ccgaggagaa 240

aacactgagg ttcatgaga aatctggttg agttgtgtgt cttaagccaa attccgaaga 300

tttggttttg aaagatgggt tgtccctcc taaaagtgtt ctactacata tacgtnccaa 360

tttgtaantc actctccaac ttaanttttt tttggtggtt gttccactcc ggtgacaacc 420

ac 422

<210> 43

<211> 459

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-06-Q1-B1-D8

<400> 43

tgacgtcnga cccacgcgta cntaaactcg gaattcgggt cgagaaaaaa aaaaattaac 60

tcgtaatttt tttttgaata ttttcgtttt tttaccggga ctctgtctttg tcacattccc 120

tttctttggt ttncaaaaang atgataaacc ctttcaattt ttttatttca aattgaactt 180

cgtacttggt ttctctatat tgatttctat tgtttattta aggttcttta gaaactcttt 240

ttgtaaagaa tcgaagtttt ttacgatact tcatcaagat gattgtacaa ggaaagtana 300

ctactagggt ttataaagga aagnctggaa aaagaaggat aaaggaactt tttttttatt 360

ggatcgggaa tcctcattaa ngtaatcggg tgtggataaa aagatctccc taaggttata 420

cnagntaaat tcttganga atgaatccna ttttaaaag 459

<210> 44

<211> 443

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-06-Q1-B1-E1

<400> 44

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gagtttttgt ccatcatctt gtggctccgt tagccaagat agctagcttc tgtctggcaa 120

atctagcttc tataagcagt tttggtgtta gtcacttaaa atcaatctat cgacttgtat 180

ctctggaagc tcgatcttgc aaatcgnta aagtaaagag aanaagagtt gtttccagca 240

aatttggtt gccatanccg tctctagttg tttttgaatc tggtgaaaaa caaagtaaatt 300

cgatgtttta gaaatttaca gcacgattg aggttcacca agaatcgga tcgttgacga 360

caaagattaa ccgggatggt taacgcactt nctcatacnt gtccgttttt aatacatttt 420

tggagttgta ngcctgaacc tgt 443

<210> 45

<211> 424

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-06-Q1-B1-E4

<400> 45

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acttgccgtg gctgaagggtg caagagccag aggagcctct aaaatcattg ggatcgacat 120

caaccctgac aagttccaac taggcagaga agcagggatt agtgaattca taaatccaaa 180

ggagagtgc aaggcagttc atgagagagt aatggagata acagaggag gagtggagta 240

cagcttcgag tgtgcaggaa gtatagaagc acttagagaa gcctttctgt ctacaaactc 300

aggagtggga gtgactgtca tgctgggcgt tcacgcaagc ccacagcttc tccctatcca 360

tcccatggag ctcttccaaa ggcagattca tcaaccgct cctggtttcc ggagggttc 420

aaaa 424

<210> 46

<211> 471

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-06-Q1-B1-E5

<400> 46

ctatagaaa catntgacgt ccgacccacg cgtacntaaa ctcggaattc ggctcgagca 60

ccgaccggga tgaatccgtc acttctttta ctaatacgaa ctccagtttt gagtttecta 120

taatgggttg ttccgattta ctacctggtt tctcaaagtc tttcgctcgg tgggtattct 180

ccgcaagagc atggtaaaga gggctctggag aaagaaatga gccttgacaca ggaaggtaac 240

ggtggttact tggcaggtac ggcaggggtg aacagagtcg taataacagg aaaagcacag 300

aataacagtt acatcttgta aatatccgac tcataccttt gtaaagatcc acgnnnnnnn 360

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnaagca aaatagattt caatcctggt 420

ttttaccan canccacaaa gtttgattct gtttttccgt ttttggtaaa n 471

<210> 47

<211> 473

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-06-Q1-B1-E7

<400> 47

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
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caatcgaaac cctaacgccg cgcgcgtgt tttaatgggt cacaacacct ccacatctca 300  
agctatgcat caaagattac cttttgggtg gttctatgtc accgcatcaa gcntcaacaa 360  
catcaagtat catcatctc aagcctcagc aacaagatag atnaagnaga ctcttggaa 420  
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<210> 48

<211> 419

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-06-Q1-B1-F1

<400> 48

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tcgttactaa ttgagtcgga gactgttcat ttcttgattc tgaagaaagt tttggagaag 180  
gagaagatgt caactctgcg agtgagctag ggtttagtgt gttttccgat ttttgagctc 240  
ttgggggattg ttgttttctc ttaaagagtc gattttgaat ggcgggtggag tatgtatgtt 300  
gcagcccaaa cttctttata catatanctg tgaatgtgtt cctgtcctgt tcgctggact 360  
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<210> 49

<211> 430

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-05-Q1-B1-D5

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atctcaacca accgtaccgg accggttatc actttcaacc tctcaaaaat tggatgaacg 180  
atcctaattg accaatgata tacaaggaa tataccatct tttttaccaa tataacccat 240  
acggtgccgt ttgggatgtg agaatcgtgt ggggacactc cacgtcagtt gacttagtca 300  
actggatttc acaacctcca gctttaatcc atctcaagcc gtcagatctc aacggttggt 360  
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tgacaaaaac 430

<210> 50  
<211> 497  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-05-Q1-B1-D6  
<400> 50

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ggaattcggc tcgagcgcca ctaaggatct ccacgatgcc attgcatctg gcaactaccc 120  
cgagtggaaa cttttcatcc agaccatgga tcctgcagat gaggataagt ttgactttga 180  
cccacttgat gtgaccaaga tctggcctga ggatattttg cctctgcaac cggttgggtcg 240  
cttggttctg aacaggacca ttgacaattt cttcaatgaa actgagcagc ttgcgttcaa 300  
cccgggtctt gtggttctct gaatctacta ctgagacgac aagctgctcc agtgtangat 360  
ctttgcttat ggtgacactc agagacatcg ccttggaccg anttaattgc agcctccaat 420  
caatgctccc aaatgtgctc aacaacaaac aatcaccatg gaaggtttaa tgaacttcaa 480  
gccacaagag gatgang 497

<210> 51  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-05-Q1-B1-D8

<400> 51

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cccttcttcg ttacgatcaa cactctctgt ttctttctct gctggatctc ttattcggct 180

tccttccgtc ggcaagcgca atctctccgt cgtcgtttcc tctggaagag actcctcgat 240

gtcatcaaac aatgtttctc gcggtcgtc ttcaaagggt gctgctgaat ctttcttcag 300

gagtgtctta gggcagatgg aaactgttta cctaaatcga aaccgcacgc ctaaattcgt 360

cctggagctt gttcgatnec ttgatgaaca acaactttgg caatgattaa cccgccttt 420

aana 424

<210> 52

<211> 446

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-05-Q1-B1-E12

<400> 52

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aaagaccgac caatcgttta caacacgatt caggcgtact tgagagacgc cggtgagaga 180

ctgcatttgg cagtacaaaa tgctgagaaa gagaatgttc ctatgggggtt caagttgggtg 240

agaggggctt acatgtctag cgaagctagc ttggcggatt ccctggggtt caagtcgcca 300

gtccacgaca caattcagga tactcactct tgttacaatg attgtatgac attcctgatg 360

gagaaagcat caaacggttc tgggttceng tgcgtttctc gccaacacat aacgctgant 420

ccggggaaaa ctttccttca aggaaa 446

<210> 53

<211> 409

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-05-Q1-B1-E6

<400> 53

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ttcttctctg catctcaaag actaaaaggc tttagcaaaa accgaccagc tgagaagatg 120

tcttcacgtg acaacacaat tgctttgtcc tccactccga ctttctctct ctcaagtgcc 180

gctgccggac cgggaccaa caactttaac cgtcaagagg ctgcgatgac catgggttcaa 240

caacaacca cttctctcgt tgctccacca cccaagaagc gaaggaacca acccggaac 300

ccaaatccaa gatgctgaag tgatagcgtt atcgccaaag acgataatgg cgacgaacaa 360

gttcctaagt gaagtgtgca aaaaanggg ttcaagaagg gaaanaatc 409

<210> 54

<211> 456

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-05-Q1-B1-D2

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gattcgtttg gaggtgagct ggtttgccgc ggctaaacca gcgagtccag cgccgatgat 180

gatgacgcca gtttgattct tccgaatgta cggatcttcc gtggaagatt gagctccgga 240

aaagcgttga tatcgggtgat ttgcatggcc gcggcgccga gggaagaaat gagaagtaga 300

tgaggttggg agaganatng ccacggggca ttttaaaagt ttgggataaa gggttttcct 360

cantccttta cttaatttc cccggggaaa aattatttgt ccaaganaaa ataatatata 420

tatantcaaa ataattattt aaaagaattc gantaa 456

<210> 55

<211> 408

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-05-Q1-B1-E9

<400> 55

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gcctattatt gtccaaatgc aacaacttac tcaagtaaca gcacttactt gaccaatctt 180  
aaaacccttt tgtcctctct ctcttcccg c aacgcctctt actccaccgg attccaaaac 240  
gccacggtgg gacaagccct tgacaggggc accggacttt tcctttgccg gggagacgtc 300  
tcgccggaag ttgccgtaa ctgcgtcacc ttgccgtca acaacacctt tagtaggtgt 360  
ccgaatcaga gagaagctgt gttctantac gaagaatgca tantcaag 408

<210> 56  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-05-Q1-B1-F12  
<400> 56

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gtcagttgat gatatccgag ttggagactc gctattggtt ttgcctgggtg agacatttcc 180  
tgtcgatggg agtgccttag ctggaagaag tgttgtagat gaatctatgc tgacaggaga 240  
gtcacttccg gtgtttaaag aagaaggctg ctgagtttca gcgggaacaa ttaactggga 300  
tggccctcta cggatcaaag cttcttctac tgggttccaa ctcaacgata tctaaaattg 360  
tcagaatggg ttganggatg cacaangta atgcaactcc ggtacaanag gctg 414

<210> 57  
<211> 455  
<212> DNA  
<213> Arabidopsis thaliana  
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<400> 57

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ggattgaaga agttgacgaa gaagacgaag ttttaacaatg gctccagtga aaaaatcaga 180  
 taagaaagca acattagatg ctgctgcttg gatgttcaat gttgttactt ctgttggtat 240  
 catcattggt aataaagctt taatggctac ttatggcttt agctttgcta caacgttaac 300  
 cggtttacat ttcgccacta cgacgttgat gacgcttggt ttaagatgtt taggatatat 360  
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<210> 58  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 ttcgttctct tcttcaagct ctctgtctct ccaaattggc gacaccggta gacacaaatg 180  
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 cggngaaact ccaacagagt tcctctgtcc catcaccggn tttttgatgt cagaccccg 300  
 cgtcgtcgct tctgggtcaa catttgaacg tatctccgtc caagtttgcc ggaatctcaa 360  
 gtttgcctca aagcttcacg acgggnactc aaccaagatt tatccaccgt tatcccaa 420  
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<210> 59  
 <211> 454  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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tccttattta aggcgcaaga tggacgcata gctctaatac tagaatcaac ggtgtttcat 240  
ccacaaggtg gtggccagcc gtcagacacc ggtttaattg ttttctccgg ttcggatttg 300  
aaattttccg ttcaagatgt tcgatcgaaa gacggaattg ttctccatta cggagttttc 360  
gaaggttcga atcctgaaag tgggattgat agtgagaaag ggaaagaagn ttactaactg 420  
gttgatgaat caaagggtaa aaccaaattc aagg 454

<210> 60  
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<212> DNA  
<213> Arabidopsis thaliana  
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ttgcttctct gtctttcttt tcaagttggt gtctctgagg ccaactacaa cgcagttact 180  
acaaggtact cggattctcc tcgatgcgcc aatggatctt ctgcaagtcc accaacaaga 240  
cactgtccaa gggggcgtec ccgtctctct acaccgagag tagcggtgca ctctaactca 300  
accaaaggaa aaggcccatn agtgatgaaa ttattttatg tctcaacact atgatttttg 360  
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naattacatt aaagaaacaa atcaaaaacn 450

<210> 61  
<211> 452  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 61

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 ctaagaaaat tgtagacctc aacactacgg agttagatcg tactgacgac attctcgacg 240  
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 ttggatcgac ggctggtggtt gattctgggg atatctctcc ggctcgatgat atccaagaag 360  
 aagattcgac gtgctgaaaa gtttggtggtt tccgtgaaaa ttgaccgaag aggaaaaacc 420  
 ncaattctcg tgcttgaaag gttttggtac ng 452

<210> 62  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 gtg 423

<210> 63  
 <211> 463  
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<210> 64  
 <211> 430  
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 gaaagagcac cagcgggttt tcactccatc agtgattgaa ccatcgtttg ggattgggtc 360  
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<210> 65  
 <211> 214  
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 <213> Arabidopsis thaliana  
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gatataact atatatctgt tgaatatggt gagtagagac aatgtttata atatactgta 180  
acagttttta tccacggaca aaaaaaaaaa aaaa 214

<210> 66  
<211> 206  
<212> DNA  
<213> Arabidopsis thaliana  
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tgtttaagct cttgtatgat atgatgatgt tttnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnn 206

<210> 67  
<211> 404  
<212> DNA  
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aatgagatn ggnattcctc ggggaattcc aattccanat tttcaagaaa taaggaggca 300  
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<211> 439  
<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-05-Q1-B1-B10

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aatgtgttca ttagagaaac gtgatcgtct tttcatacta aaactcacCG gcgacggcga 180

acaccgtcta aacccaacct tactcgactc tctccgctcc accatcaacc aaatccgac 240

agatccatca ttttcacaat cagtactcat cacaacatca gatggtaaT tcttctccaa 300

cggctacgat ctcgctttag ccgagtcaaa tctttctctc tctgttgtaa tggacgcaaa 360

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<400> 69

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tattaggttc agttcctttt cgattcttcg tgtggatcgc tgtcggtaga tttccgattt 180

ctttaggttc tgctcgaaat cgtggtttag tgtttattat catcgattca gaaaacgggtg 240

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tcttcaccgn tcaacantat caaccaacaa caaagattca tcccagcttt taacttgaga 420

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<210> 70

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 <213> Arabidopsis thaliana  
  
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 caagacaact aaagtggatc ccacggttaa caaagattac gtgacagagc taaaagcgtc 360  
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<210> 71  
 <211> 436  
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 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 cggaatatct tacggttttc agtggcctgc tctgattcat cgctctcgc tcagcagacc 180  
 tgggtggttcg cctaagcttc gaattaccgg tatagagctt cctcagcgcg gtttttagacc 240  
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<210> 72  
 <211> 473

<212> DNA  
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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnngggg cagtgggtctt 300  
 atgttagcaa gccacactag tatcaggcac ctattcaagc aaatgtttga gccaatatga 360  
 taaagttgag ggaaagaagc aagcttttct agacaattac cggaagttt cccatgtttg 420  
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<210> 73  
 <211> 466  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
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 gctcgatcag cttgtggctc agcagaattg agagacctaa ccaaagaatc acatgttctt 180  
 gtctggtctc tctatgtggt agataaaaac ctctttttta caggtgggtg tggtagaagg 240  
 gtaacaagat taacaaagaa gagaagagaa gaaagaagat ttctttggtt ttggtcaatt 300  
 aattttcaca aaaaacagtt tttttttttt atttananaa agagaaggga acaattccaa 360  
 gaaaaagggc ttatgggaaa gaaaaggaga ttaaacaaaa accnttcttg gggtttctct 420  
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<210> 74  
 <211> 437



<212> DNA  
 <213> Arabidopsis thaliana  
  
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 tcggtcattg atcagcttgg ttactgtatt aacagctaca gagaggcagc tatgtctact 180  
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 acaccggctc tcttgtcagc tgacgttaaa agcaaggcag aggcattgga caagttttgc 360  
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 <211> 464  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 cagtcttttc caaagacaac aaaatgattg gagcaaagaa aactatgggtt ttctacactg 180  
 gaaaagcacc cacaggaaga aaaactaaat ggaaaatgaa tgagtaccac gccgttgacg 240  
 aaacagtcaa cgcttcaca atccctaagc tgagacgtga gttcagttta tgtcgagtct 300  
 acataacaac aggaagctcc agagcttttg atagacgtcc tgaaggaggt tttgcagaca 360  
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<210> 76  
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<212> DNA  
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 aaaccagtag aagcagaaag cttaaaagag gaagaccttc tacaagcatc cggaactgat 180  
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 ttttccgatt cagaggatga tggaacacat gaaggaacag aagatggaga tgtagaattt 300  
 tccgatgacg acgacgtgcc ttgagcatga tgggggtcaaa ttgataacga aggatgatga 360  
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 <211> 429  
 <212> DNA  
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 tagagtgggt agaagatagt gaatcgtctc tggaggagag aaacgaggaa gaacacttga 180  
 acaacacggt tttgcacatg gctgcaaagt ttgggtcaccg agaactcgtc tccaagatta 240  
 ttgagctccg accttccctc gtgtcttccc gcaacgcata cagaaacaca cttttgcatc 300  
 ttgctgctat ccttggagat gtaaacaatg ttatgcagat gttagaagac tgggattggg 360  
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 <211> 485

<212> DNA  
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 aacaggtgtg aaaggtctca ttgatgetca catcactgag attcctcgaa ttttctgtct 180  
 ccctcaaggt tccttatccg acaagaaaacc ttttgtttct accactgatt ttgcatccc 240  
 tatcatcgac ttcaaggcc tccacgtctc ccgtgaagat atcgttggga agatcaaaga 300  
 cgctgcatcg aattggggat tcttcagggt gatcaatcat ggtgttcctt taaacgttct 360  
 tcaagaagat tcaagatgga gtctgtaggt tcatgaggaa gtccttgag gttaagaaaa 420  
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<210> 79  
 <211> 432  
 <212> DNA  
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 gctctagaag atggtttcgt ttccgtgact ccattttctc tccttccaaa aacggattca 360  
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<210> 80  
 <211> 405  
 <212> DNA  
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agatctggat tctcatatth ggagatcgtc taaagataaa tcatcatttg cagtcaaaag  240
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tcttttgagt tttgtggata ctttgtggca tacttttaac tccggatcta ntcgctccac  360
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<210> 81  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn  180
nnnntattta cactgatctg gaagcttttc agattcagca gcacaagacc agacgacaca  240
acagggaaact cttttctttc cattattcaa gatctagtaa cctccctgaa tatacgcatt  300
taggcgttga agctcctctc tatgctcatg aaccactgca cggnccancat ctctatggg  360
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<210> 82  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana

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<400> 82

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ctcgatcaca aattaaactc actttccggg gacgaanttg gtagegaagg cccangcatt 180  
gttggtgact ggatcagcca agtgggccgc gaggttctcc aacggtcctt ttccggtgac 240  
aatggcctga acgaagaatc catcatagag aacatagcca accttccgtt cttgagctcc 300  
ttcancttca actccgcnaa aagcctcggg gtcagtaccg aggcccaatg ggtcnaagct 360  
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<210> 83  
<211> 409  
<212> DNA  
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<223> unsure at all n locations  
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<400> 83

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accagtttct ctcttctgat aagattggga agaagatagc agtataaagc gttggtgaag 180  
tgtagagaa gctcatcgct tggaaagctt acatataaca tcggcgactg caaaaagata 240  
ttgagatttc aaaagactag tttgagacca tggcgaatca ngctgtgtag ttangcattg 300  
ctttcttgag gaagggttatt gggctgagat tcttcagggg ctaaccgggc aaaaggaatg 360  
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<210> 84  
<211> 394  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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<210> 85

<211> 402

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-044-Q1-E1-D6

<400> 85

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acaagatatg aaatctgcat cacatttcca agatgcaaca aaccggatac acacaactcg 180  
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ttgacnggat cagccaagtg gtccgcgagg ntcnccaacg gtccctttcc ggtgacaatg 300  
gcctgaacna anaatccaaa catagagaac atagncaacc ttccgttctt gagctccttc 360  
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<210> 86

<211> 400

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-044-Q1-E1-C12

<400> 86

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cacctcccca catctttttc cttattttcaa tcttctctccc ttcaacaaaa gatctaacat 180  
 aaattcatct atattttata cattctcaca atttcatccc ctcatctttt ttattgctcc 240  
 cccatgcccc aaaatgtccc ttaaaaacgga atcgatccct cacaatattg gtttgtccat 300  
 cagctcgttt tcggctgcga tccttcccgga gccacggccg gttatcctac cgaatgatcc 360  
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<210> 87  
 <211> 399  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tangacagag gttttcagag cagtaacaaa caacttacac atgagagtta acattgcaca 180  
 gtctgagatt atacncgcta gattcttttc aagtcttgaa gaacaacatg tgcagcgttt 240  
 cttccaggtg caccataaac tccgcctcca ggatgagctc cgctgccaca caagtagaga 300  
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<210> 88  
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 tatcatagct caacatgaaa acaagatata ttggagtagg atctccagga aacgaggatt 180  
 ataaaattcc tacatgagat aatccttact agttgccatt ttggatgtca gccaccgcca 240

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<210> 89  
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 <213> Arabidopsis thaliana  
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 caaaaaagcc tttacacacc gtgctattcc cacccaattc aacctcacat caaagaactt 180  
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 cgtaagcgat taaaccacgg gtgctcctct ccaacatcaa gcaagagata ccaccaatgg 360  
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<210> 90  
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 ccatgaatta tcaactctttt tgggaactcc ctctcttctt ctctcttcta tctgtccatt 300  
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397

<210> 91  
<211> 406  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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caacacgata cagcagaagc agattctctt acttccgcca caacatttac aatcagagat 180  
caaccagtat ggtaatacag gtgtgagcag ttttggatta agtagtcttc tcattctctg 240  
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tgaaataatc gtgaccaaata ataacaccgc cgggtcggag tatccgaacc gcccggttta 300  
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<210> 93  
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 aattaagttg aaagaatgat tacaataacg gaactcagac ttcaaagttg aaagaatggg 180  
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<210> 94  
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<210> 95  
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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nngaacccaa 180  
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gccgcttctg ccgcagcata agcctccgga ggtggagtca aaagccctga cgctgcaaga 300  
ccaccaccaa tacctagacc aacaacgata cctttactct cacgcatctt gttgacctgg 360  
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<210> 96  
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<212> DNA  
<213> Arabidopsis thaliana

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ttgatgttct tatcaagaac tacctccttc agaaacagcc tcttgagcca acactttcca 180  
tttctcaagc attctttcta atctctttac cttgctctgc ctccataact tcttccacac 240  
gtctcacaaa ctcttctctt ctcacgaacc catcactgtc tgctttaacc ctaactccaa 300  
cttccacac atcctccatg aacttagcat ttgtaggctg atctgcccac tgaggcatac 360  
caatcattgg aactcccaaa ctcaatccct ccaacgtcga gtttcaacca caatn 415

<210> 97  
<211> 423  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-043-Q1-E1-H4

<400> 97

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agaagaagaa gaaatggaga ttacagaaat ggggtgaaatc gatgagtggg aggaatggat 120  
gggattcgaa ggaggggatac catcaggtat ttcttactag atatatatca tttgctacaa 180  
tggatagtag tagaatcaga gagatggaga gtacaatttt tgggagcaag acaacagttg 240  
catcttggag gaagcttgct agcgccggag gaaggacatg tcatgtactc tacttgtaag 300  
caatagagag gacacgcgat cgctgtcttt gttgtagtaa ctccagggat tattcctcct 360  
aaaatagctc ctgctatgat gaaagacatc acccaaatcc tgtatgttaa cctccnaagc 420  
cga 423

<210> 98  
<211> 408  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-044-Q1-E1-A1  
<400> 98

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nnnnnnnnnn ngggataaaa cattcncgtc ttaaacaagc agaaaacata cctcgagtcc 120  
catgaataaa aattatagaa cataacataa gaatttanat gtaagagatg caaaccaagt 180  
ttatagagcc attgnttggg tcnaaaannn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnagct tccttggatc atctcancaa 300  
acttcttcat cagnnagcct tccaccaagg ggttggcanc acaagggggg nggctcanct 360  
gctgnnaagn aaancgttct gggccctgtc aaaaaccgga agggntcc 408

<210> 99  
<211> 397  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-044-Q1-E1-A11  
<400> 99

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agtttttggn tttattctct tgctaagtaa ggcgaagaag agaagcagca caaggcctta 120  
 gttttgacaa gttaaacaac gaaacaacac anaacatcaa ncacaacanc aacaacaana 180  
 acaacganga ctgcataatnt aactgatctt gggaagcttt tcagattcag caagcacaag 240  
 accangacga cacaacaggg aaactctttt ctttccanta ttcaacgatc tagtaacctc 300  
 cctgaatata ggcatttagg cggtgaagct cctcncnat gcncatgaac cactgcaagg 360  
 ggcaagnatc cncctaattg gcaccattcc caatcat 397

<210> 100  
 <211> 324  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-044-Q1-E1-A12  
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 accgtagaag acccaccatc accaacagct ttcctcgcca ctgaagattt ttctataacc 120  
 ttcttttctca cgggggttatc actatccatc aatgatcgga cggctgtggc tatttcatcg 180  
 gctgacacga tctccaaagt aaccctatca ccatccgcca cgtagtcaag ccttatctcc 240  
 actgctaagc ccaactcctt caccatctca aatgcgttca gttgttgctc cgcatacatt 300  
 gggccacggt gcaataggta cacc 324

<210> 101  
 <211> 375  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 ctccaactaa cccatttggt ttcaacantt acaacaagta cagggctaga tggcaaaaga 120  
 tgtattgtat cctaaagcta aactcttgta agctttcgac aaaataaaaa gcaagaagac 180  
 ttataggaga ttgcagggtt atcactccac tcagtcttct tcactctgaac tatcatatgc 240

taatcccaac aagcctttcg gagcattttg accttgccca ttgctttccg tagcttttcc 300  
 gtcattttctg tctgcgccag gttttttcaa cactggcata gcttcttctt tctgcttata 360  
 tctgtgaact tttgn 375

<210> 102  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-044-Q1-E1-A2  
 <400> 102

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 ccaaacgaca aatacacggt tacaaaatga aagaagccca naacaaaccc agcgaaaaca 120  
 agtntcagaa ccgtgcggtg caccggaaac acgaacatcg ccttctagaa ccgacgctag 180  
 caaggacgac tcctatgtgg ctacgacctc gacatcaaac ttttggcttg agctagcgaa 240  
 ccccgccgca natcaacgcc aagaacaagc ctaacctgga acaatccttt cgggaaaagg 300  
 gagaaccgcc acaaccgaga cccaatccct cctctcccca acctaacaag acganggggtt 360  
 cgaaacttan ccccatctcc actgatgctc acccaaggga cctctc 406

<210> 103  
 <211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 103

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 caacagaatt atgggtcata gcagctacat tattacattc tctacacaac aatggatata 120  
 gaccacattc tatcacagaa cccatcactt tccatttcac atttatctat atgcatatag 180  
 atagatagat agacgtcgag actatatatg gttattgggtt aagaatgaaa gagaaaaaag 240  
 ctgggaggaa tttgtttcta aggtccatca gcaagattga gtctttctta gggtccagtg 300  
 aagaccatcg tggatgctgc gtaagaagtc gttaagtggg attcaacttg acaagcgggtt 360

gaaacggggc aaggtgccat gctaaacact agtgcacccc ctgcn

405

<210> 104  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-044-Q1-E1-A5  
  
<400> 104

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gacaaagccg gcaggatata atcctccggt acacaagccg gcgaggaatg aaaccccgac 120  
actaagcccc gacatgggga aacgacgtag aaagacaaaa taaaacatga ttgatgattt 180  
tacacataaa catagtcttc tctttaacca anataaacca agatcgaaaa ttaactggca 240  
tcggagattt ccgtccggag aatggagaca cccactttta agaaaanttt gattcntccn 300  
tgcccttact gataatttaa aaatccntca agaagaaaaa accttgggaa tacctttggg 360  
atgggcaaga cgggtgggaaa ctcaacctaa acaatgcaag aaaaccgtcc aagaaacgcc 420  
gttg 424

<210> 105  
<211> 394  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-044-Q1-E1-A7  
  
<400> 105

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ttaatcaaag aaacaacaaa tccttgcatt acacacctcc ccacatcttt ttccttantt 180  
caatcttcct cccttcaaca aaagatctaa cataaattca tcnatatttt aaacattctc 240  
acaatttcaa cccctcatct tttttaatgc tcccccaagc cccaaaatgt cccttaaaac 300  
ggaatcgatc cctcacaata tgggtttgtc caacanctcc gttttcgggn ngnattcttc 360  
cccganncca nnggcggggtt acccaaccna atgg 394

<210> 106  
 <211> 374  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-044-Q1-E1-B11  
  
 <400> 106

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ttttgtaaca tgagatcaat aanttcatan gtttttcttt tggttgttgt tgtanaagct  120
atgggagatt tactctgtac aaagctttga atctcccttt ttcacccaaa gaagtgtggt  180
tatggtaatg aatgatgtga ttagggcaat accaagtctc cttcttcttg ttgttgcctc  240
tcaaatttct cgccttcctg ctttggaang agaatacgcn ttatgtcttc tgcngttagc  300
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agagattcaa tcct                                                         374
  
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<210> 107  
 <211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-044-Q1-E1-B4  
  
 <400> 107

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gattantgca taacaaaaaa nggnaaatga aagattgtga gaacttggtc acttctttga  120
agaaactgtt gatgaatctg gctctttcca tgcagcttgc cattgtttgt catanaacgt  180
agtctcatcg aacagatcct taagtttgtc taaatcttca ttcttacgga tgaagagaac  240
tccancnaca gccacaaaca agagtgtttt gcagaagaaa tttcccatth gatnaacaag  300
tcctactccg gtaagactat cancanagta agccatgaag aacctatcat cggcagcacg  360
aacatttgng aagttcagcc tcaaggtaga tgggaacccc ttcaaccaa                409
  
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<210> 108  
 <211> 383  
 <212> DNA



<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-044-Q1-E1-B6

<400> 108

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caaccttggc acatacgtat atatgcagta tgtaactcac cacaataaaa atcatagaac 120

aatatacan cgcacatcat cctactacaa gtcagaattt tgcaatccac gaagcagaat 180

agtaaacggg gaagaagata aagaggtgct cagatcataa tacctctcat gtaattaatc 240

gagcaccttt ccgtactctg gtttgggtcca agctgcatag gatacagggc gcgcccacgg 300

tatggtttac ccagtgggtg agatncagtg ccggtttang tcaacgaggt agtaaaaaatc 360

canacttggt tgtgtctctc tgg 383

<210> 109

<211> 397

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-044-Q1-E1-B8

<400> 109

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnngaa cagagttctc tcataatcca 60

aggcttgctt tgatctttta gaacattcta atattcacag agatgtaacc aaactataca 120

gttgcatcca gaaaatccga ctcaagcgat ttcataagca cgagtcaacc accacagatg 180

aaccaaacta tatacagttt gcatcagaaa aaaattctga ttcagcggag ttcagtgagc 240

agccacgacc atcattatct gaatttagcc ttgagcccag cagttgaggt acatgacttg 300

tcggagaaaac tcacgaggag tgggaagaag aggtacgaag tccttctctc gaaggggana 360

aatccccgg gtaaatttgc cggggggnaa aaggacg 397

<210> 110

<211> 419

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-044-Q1-E1-C1

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ccaaaataga tacaaccgcg tttttgtttg taattgcatg attagaaaga gttctagaga 120

ttatcaatta tacattatac aaacgataac gaaaanaaaa gaagaagaag agagttttgg 180

actcatatag aagattcaaa gagggttcaa aacaaatcaa aacctgtgca ttaactccag 240

caaaaatcct caagaatccc ctcaagtaat cctnagcttg ggcgctttc caannataca 300

acaatcnaaa agcgatttcc tggaaattcg ggangcatta atccggngca ccaaggcaat 360

tggnaactcaa tttnanctgc aagctcaata accaaangac ccccggtaaa ngcccaaaa 419

<210> 111

<211> 397

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-044-Q1-E1-C10

<400> 111

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acaaagtctt gcaaatttta catctaaaca agctctcttt ctctctcac actcacgaan 120

caaagacnga agcaaaatan agataaaact tgggtcactt tccggggaac aaagttggtg 180

gcgaatgcc atgcgttggt gntaacngga tctgncnaat ggcagcaac gttctctaac 240

ngtcccttac cagtgnnnat gggcttgaac taagaatcca caacatagag aacataagcc 300

aatcttccgt tcttgagctc cttcancttc anctcaagcg aatgcctctg ggtcngtagc 360

caaaccaat ggggtccaag cttgccaccg ggggtana 397

<210> 112

<211> 406

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-044-Q1-E1-C11

<400> 112

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agaaagaaaa gttnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 120  
 nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 180  
 nnnnnnnnnng gtttttgctc tttttttaagt actaagtgat tggtaaccat cttcccgttt 240  
 ctgtctccgg tatatcacgg cggctattaa aaccacaaca gccacaacta ccgtcactgc 300  
 aaaaatggct aaaaagctca agcttctcgc aagtgcctca aaatgttggt tattaggcaa 360  
 ggagctatcc tggtttccgg gagnetgctg aacaacnaag gatgta 406

<210> 113  
 <211> 431  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-H6

<400> 113  
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 tgaacatatt aaagacttgt gatggttcta attcttcata tctcctgcgg aaaccatatt 120  
 ttctagaang ttccattcgt atttccaact caaagaaaaa cagtgcactgg atcttctgtg 180  
 tctgagttct cactccaaaa ccttgtagtg gatccgagtc tacgagcatt tgagtttgag 240  
 aatctacata aggcttcatt catctgttct gcctacgttt gcgaaaatgt ctgaggatga 300  
 aactgtctgc atacagagga tacttctttt ttanaaagac cttttatgca ttccaatacg 360  
 aaaagtcgac tanttctca tcctttcgaa ctataaacat acaancgaga nncctcaaaa 420  
 accggggttg a 431

<210> 114  
 <211> 448  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-H7

<400> 114  
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 cttgaaacac tatgatggat tcaacgctac ccaaccgaaa ttcactgtat tttccaacc 120

acaacgagat	gaattacacc	acgactctaa	gtgaaatcat	cttttaaacc	acaaaaattc	180
acccaatgac	acgaaaacat	ttctagcaca	aagaaaaatca	aatcctatcc	tgagatccaa	240
tccaattcca	agctattagt	cctcatgat	ccgagtgtag	aacatgtcct	aatagcatcc	300
tacgccaaaa	aggcggcaac	tttcagaaag	ggtttggacc	ctcctggcct	caactaattt	360
cgggccctaa	gcctaaaaac	cggacatact	aatcccgact	ngataactca	ccnggattna	420
accggggctg	gagacaaaaa	atttcttg				448

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<210>      115
<211>      415
<212>      DNA
<213>      Arabidopsis thaliana

<223>      unsure at all n locations
<223>      Clone ID: ARABL1-043-Q1-E1-A3

<400>      115
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nnnnnnnnnnn	nnnnnnnnnnn	nnnnnnnnnnn	nnnnnnnnnnn	nnnnnnnnnnn	nnnnnnnnnnn	120
nnnnnnnnnnn	nnnnnnnnnnn	nnnnnnnnnnn	nnnnnnnnnnn	nnnnnnnnnnn	ningaacccaa	180
agtagtgccg	gtgtcacaaac	aatcaacaac	aactgtcctc	tgctgtctga	actagcagcc	240
gccgcttctg	ccgcagcata	agcctccgga	ggtggagtca	aaagccctga	cgctgcaaga	300
ccaccaccaa	tacctagacc	aacaacgata	cctttactct	cacgcattct	gttgacctgg	360
ttaataactg	gctggaagat	gttggttaang	gaccatgcaa	tggtctggggac	nattg	415

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<210>      116
<211>      242
<212>      DNA
<213>      Arabidopsis thaliana

<223>      unsure at all n locations
<223>      Clone ID: ARABL1-043-Q1-E1-A8

<400>      116
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caagtgactt aacattacgt ttccagatac caatgaatgt tctctctctc gcttgttatg    120
cttctacttg gttttgtgtg ttctctattt tgttctggtt ctgctttaga tttgacgtaa    180

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cagttcgtga ttaggtatatt tggtatctgg aaacgtaatg acaagtgact taacactcga 240  
gc 242

<210> 117  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-043-Q1-E1-B2  
  
<400> 117

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aggatcttca tacagcaaaa ccattaacat tacatgaata tctatctaaa gcgtacaaca 120  
atcactaatt tactatgtac acacgcttct agcttctgat atatctcttc tacatgtcgt 180  
aagagtttgg aatgtgacag atacaaaacc acaaaccaaa tgaagaagga aagagtcttt 240  
acagatccga gtcttgccgg ctagccaagc agagttcatg taattcattg agtatccatt 300  
cctcaccaag tgtgaccacc aaggaccaat actctagttc ctccaacaac gcatgtgcta 360  
tgtccccaag ctaacttaag cggtttcccg gggaaaatca aggttctcca aggag 415

<210> 118  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-043-Q1-E1-B3  
  
<400> 118

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cacatagtagt agtacaacct tgtaaaaagc tagcagataa aaagagaaca ttcagtagaa 120  
gccaaagaga tgcagaagaa caaagctcaa tgacttgaag cggctggaga agtaagctct 180  
ctagaagaca acagtgtcga gcatagtgcc tagtgtctga acaatgttgg atgacatgag 240  
gttcgagaca tgttcttcca gatgcttctt tgcattctgt cttcccacat tcacaattgc 300  
caagcttctc tggtgacaac tcgtcctcct cttgaaccgc cttgttanat ttagcaacca 360  
agctcaacat ctctggaac gtctgttctt tgggcctggg attggtgtcn aaacc 415

<210> 119  
 <211> 490  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-H4  
  
 <400> 119  
  
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 tttttttttt tgagataata atgctggttt atctaaataa ccgatttggc tctcaaacag 120  
 aactaatcaa tccaagtcaa tgtcatggct ctttattgaa tgagagaggt tcataatcaa 180  
 atacaatacg attcagcaac aaagcttcat cattcaggag atattcagaa gattctttat 240  
 gtcattgctca agtgaagag gggaagtagt tggataataa cgttgtacag cttgaccggt 300  
 tttgtcaaca agaaacttag caaagttcca ttgaatgtca tcgccgaaga ttccccattt 360  
 gcctttcttc aggaacttat acagaggaga agcattctct ccgtttactt caatcctggt 420  
 gaaaatgggg aaatcagaat tggaagcgaa gtncaaacia agtcaagtta attgggcaat 480  
 aanttcccg 490

<210> 120  
 <211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-043-Q1-E1-B4  
  
 <400> 120  
  
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 ataagccaag aaaagaaaat cactggactc gtttatttgg gcaaaaggaa aagaaaagaa 120  
 gtgaagaaag agagaggggtc actactgctt ctggaggtca ataaccttag cccaagcagg 180  
 cctggcagag atcttcttaa tccactcgct aaccttaggg cgagagtcaa agagcacctt 240  
 ggagtcagta cccaacaagt aatggatggc tgggaggtgg tgaagatcag caagagtga 300  
 ggaatcacca accaagaact cagatttggc gaacctaacc tccgtagaca tccaagactt 360  
 tctggagctt aacttcaaac tccctgggcaa ccgnaagggc aattggcaa 409

<210> 121  
 <211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-043-Q1-E1-B5

<400> 121

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agataacaac tttctgtaaa ttatttaggg attcaaatac aaccagtaat agtaagggat  120
aagaaactgg aaaccccaga aatacataac aatgatagta tcacaatctt ctgtatctaa  180
gaagatatgt atctcaaatt tgataatata ngctggaaca gagagccaac aacagatata  240
aacttagatc cnatcaatat cctcatccnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn  300
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnag acgagtattc tccggaagct  360
caacaanagc cctaannaan ctagcccaac caggnttttc cttga                      405

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<210> 122  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-043-Q1-E1-B6

<400> 122

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aaatctcgta caagacgaaa catgatcatt gcaacgtacg tatgcaatta ttttcaagca  120
cgacactcgg gtggtgggac aggaaaccta gaccggtcag tacaataatc ataaaccata  180
tggtttactc taaccaccg gtaacgtcga gcttcaacgg cgtaagaga ctgataggca  240
taaccttccc accaattatg agggttcgat ggacaaaagg ttggtccagg aacaggacaa  300
ccttcgatgt cgaaatcttt gtaataagca taaaatggga gctttgctcc aatcaatttt  360
ctctaattcca ccacgtgttg cccagtcacg tgcttccan aatgttgagt                410

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<210> 123  
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<212> DNA  
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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnngca gaaaatagca 120  
 tgtattaaaa ttattatttg natggataaa agacaaataa tatatcaaaa tgctgaatac 180  
 aaaatgtgag ctgtaataca tgagacaaat gggagaggan nnnnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnggct 300  
 agaacaagta gagaccatgc gattgccgca gctcccacca tttgtatcac aacacttatt 360  
 ctttgtgctc cgctctgatc gtcagcggca ggaganaaag catcccttgg tccangacca 420  
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<210> 124  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-043-Q1-E1-C8  
  
 <400> 124  
  
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 gaaagcatat cattcaaag gtaaaaacta aaaacacacg aagggttttt atataaagtt 120  
 ataaacaaag catatttcaa agtgagcaat atacacaaat acgcccgtgt ttgcggataa 180  
 tagaagcaac aattcgataa ggatcgcatg caaagtggca ggtaatcaa gcatgaatgt 240  
 tggttagcgc atttatcctc tggctttaag ctccgcaagc ctctcgcaca aatcatcctc 300  
 atcgactttc tcctcagtct taagtaggaa tggcatgacc agcangctga ggaagcccca 360  
 cagagacttc caaaccatag tcatctggca accggctggc ataaaggcgt ttg 413

<210> 125  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
<223> Clone ID: ARABL1-043-Q1-E1-E6

<400> 125

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ggaccaaaca agaccagacc agcagaagaa ggagagacgg aaggcgaaaa ataaagacac 120  
tcttgtttca cgcgaaaaat tgtcaccatc atcatcaact agacaataca ggaagactaa 180  
gaagaatcaa gaagagagaa tatatgttct tgggtgaagat tagttcttcg actttgaatg 240  
ctttacgagc caatcaatga cttgatcaat gttggtagag ttcttgcatg atatcatgaa 300  
acagcagact tctctatctg taagtgatgt angtcaccatt tcgtctgtta aggcttcttt 360  
ggacagagct ccaaggtttg tcaatcctgt tcccc 395

<210> 126  
<211> 420  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-043-Q1-E1-F3

<400> 126

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnaagaaaa 60  
aactttgaga agaagagctt cattttcaan ngngatata acacatcagt ttctcaacga 120  
atcaagaaag agttaacatt gatcaaaaac agaaacataa aacactaact agaacaaaca 180  
cactcatgac aaattaaatt accaatcggg aaaacattta atcagtatga atataagaaa 240  
aaggtttgca ggttattctt caaagtgaac ctgcattatg acttgacata cagacttggt 300  
gtacctnag aaaccaaata aagttttcat ttttatgatt ccaagacata ccaaacctat 360  
caaattctca ccatttcccc tatcaaaaat ttcaacaacg aaccgaaaa aagaagtcct 420

<210> 127  
<211> 455  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-043-Q1-E1-F5

<400> 127

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tgcaaataatg acaaacacgt gacatgcagg ataatagata aagagcccca cacatcacag 120

gngaaacaan ttaacgtgca tacattttatt gacgcaattt cgtagctata gtgacatcag 180

tgacttgggt gagttttttg gggaaaagcc tttgggggga acgaaggagg gatnacaaga 240

aaaggggcaa ccttctgggg acgatatggg tgggtaaact gcgggaaata gtttggccgc 300

ccgangncng aaaaccccgg aacatgnaat tgggggacna atggggccga gttaaancct 360

aagttggatt tagccatnan tttancncn ccaagnttcn aanggaggtt tcaattcgtg 420

cgccaaggg nnattanccc aaattggttg ggaaa 455

<210> 128

<211> 412

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-043-Q1-E1-F6

<400> 128

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attttaataa attgcatgca agaaaagatg gtaacacaat aaatttatta catagaaatt 120

attttcaaag atcaaacgcc tttttagaga gatctaact accagccaga ccctaattggc 180

ataaagttac tgatgtacca tttcaagaaa acaacgcttc gaacaaatth ttgatgaagt 240

cggtcattgg cgctgcgatg atatttttgg caaccccggc cgccaagtcc ctctccaaag 300

tgccaccaag ttgtgtcata tttagtatca tgaccttgat tcttggccat cataagcctg 360

gcaaactctc tgtagttgat ttggaccaac aacaacaaca tcaagctggc ct 412

<210> 129

<211> 455

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-040-Q1-E1-G2

<400> 129

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tagagtacaa agctctttgc ttctgctga ctgatataca aacaaacaaa aaaagccgaa 120  
cctctcatac ctgaaagttg aaatgaaaca acaaaaacag cttcttactt cattccttcg 180  
ctgagaccgc gtggcattcc taagctctgc gcaaggcac tcattctctc tttcatagcc 240  
accacactct tggcgtgtgc gtccttgat gcttctgtga caagttgtga taagtttttc 300  
ggaacctagt tcattgctgg ctggggaat atcaagttac gggattgggt tgctgggnta 360  
accggataaa gttaaccctt gaacaagccc cccctggaac aataaaccaa tcaaatttcn 420  
gnggaagcaa anccttttgg aaaacgttca agctt 455

<210> 130  
<211> 439  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-040-Q1-E1-G3

<400> 130

tttttttttt ttagctaaa acagtttctt aaagtttttg ttaaatgtat acaacaaggt 60  
tcttctatat acacaagctg cgattattac tgcgagtttg taatttat tt ggatcggaac 120  
ataagacata ttgtaagact tcagatcagt tgcaggacaa gttcgagtga agtctgctag 180  
aacggctctgt ctccatctca gttcctcaaa gcttggcaag caggagggat tggtgtcagg 240  
ccacatttgc tcagaagagc ctggacttta gatgggtaaa ccgctaaaac ggggagaaca 300  
gacttgaatc tgcagatgca tttcagatta gcggttgga ggagttcaca acaccctttg 360  
attggaaatg gcgggttgcc ccnaattacg gctggacaac attttncaaa atgggttgcc 420  
ttgaangtac atgcggtaa 439

<210> 131  
<211> 442  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-040-Q1-E1-G4

<400> 131

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acaaagtcga gttcacattc atgagtagcg ctaacatatt gaaaaacaaa aataaccgat 120  
 aaaatccaaa acgggagaga gcacagcttc aacatcgatt ccaccccaaa aaagagtcaa 180  
 tcagagacgt tttacatgaa caagttgggc ttggtggcct tgtaagtcgt cttcagcttc 240  
 ctgcttggtg gtctaaccct gcggaacacc aatgggaact tgatcttgct gttgtggaac 300  
 tgttttagtgc tctctctctt gcacagcttg gctgggacag tggtctgtct gatgatctga 360  
 atgcaaggga aatctgacac ggtgacgggg atgcaacccc attgtanacc ngctcaaaac 420  
 tnccgttaaa attggggtca cg 442

<210> 132  
 <211> 439  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-G7

<400> 132  
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 gatggtatca gaagcaaact tctttacaaa caaaatatta tcaagttcat caagacagat 120  
 gcagacaata caagaatata aaacaaatgc caagctcttt tttttattac cgtaccaacc 180  
 aaataacatc ctacactcaa gtaaccacca accaaggaaa gcgaggtggc aacatctgct 240  
 tcccaaacca agaatccaca aaatatcggc tcccgatact acataccgca cttataagtt 300  
 gatcgataag gaagtacctg gaaattttta ctttggtttg tgctctcatt ctgctctgga 360  
 ctgaccagct cgagaagata aaatgatgcc tacaattagg ccgtatanag cgagcgcttc 420  
 cgcaaagata aggataaga 439

<210> 133  
 <211> 457  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-F3

<400> 133  
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ataacttaaa acatattgct atcctagaat ggtatcatct taatacagat ttttatttgg 120  
 tttcagagct gtttgatttg ctttaactta cagagtacta agtgatcata atgagtccca 180  
 aggcttgagt tctctgtcac gatccatgtg tttcctaatac acttagcctt tgccaaagct 240  
 agtgtcattg acctcgctcg caggggttagg aaaattcccc aaaagaatgc gaccaggctg 300  
 tgcaagatga cccggaaagt gcaagtgggc acaataactt gtagttaaac caaccaacc 360  
 aaccggggaa aaaacttcaa tgcaagttaa gctgggacgt tgggatnaag tctctctgga 420  
 ttccttcccc naacaaaggg gtccaaggga anttctt 457

<210> 134  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-G8

<400> 134

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 aggtgtacat attactttgg gacatggcct gcttaaacia atcatcacgc catttttttt 180  
 gttgatttta ttattttgat gattcaagag aatccaaaaa agtgtcaaata aagatttcat 240  
 atcctgtcgt ctgtcgggtca ttttttttgg gtttgttgtc tccacatcta atgtaaaaag 300  
 tttctttatt ttggtcgctt gcgatatggg tccaaggaat catccacaag tttccttcac 360  
 atagttacca actcctctca aggtcctcaa caaccccgcc ggcaaacaag gtttgncttt 420  
 cctggtgaaa ccgggttna 438

<210> 135  
 <211> 166  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABL1-040-Q1-E1-G9

<400> 135

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aagccagatt ccttaagttt taagacaaca ctataaggac ccaaaaagga gaccaaagac 120  
aaagacaaag accaaaactga taaaatgaag ctgttcaggt tggtac 166

<210> 136  
<211> 441  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-040-Q1-E1-H1  
<400> 136

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60  
nnnnnnnaac caccaaaaga ggaaacaaag cattaaagct tacaacgata tgtgcagaaa 120  
gaaaagttag gcccaacata gcccataaga ttaacatcta cggcataaag atgttttgac 180  
atgttgactc tatccaatac acgtgtccac gtgatattac aactgcaaca caagatgaag 240  
agtcacatgga agtgtaccga catcaacctt cgccgccgat gaacaccgaa tccggtgagg 300  
aatgcacatgc cgaaacatcg cacaatgaat ccttgtaacc accgaaataa aactgaacgg 360  
tgcccaattt aaaagacaca gcaaaangga tccataatta gccatcgga tatecttaaa 420  
tcttnaaacc gaagaaatat c 441

<210> 137  
<211> 456  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-040-Q1-E1-H10  
<400> 137

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ttttttatgg gttcaaatac acttattgga atcacctttg atcaaatttc acaaaagaaa 120  
tggttagtag agttacacat aagatgaata caaggcccat atggaagggtg caatgggaaa 180  
tgtagaaact tgactgcatg accgagagta tgagagaagt ttctttccaaa ggagtcaaata 240  
atctctgtgc gtgttcacaa ttcttgtgca agggctttct cgatgtcttt ctggatggat 300  
agagggtgaaa cagttgtgcc ataacgatca atgacttgac catctttgcc gaccaagaac 360

ttggtgaagt tccatttgat acgacttcca aagaaaagag gggtttcttag atttgaggaa 420  
 tttttagac tnggtgcaac gttttgtcca attaca 456

<210> 138  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-H12  
 <400> 138

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 taggtttttg caaaaccaca agatacagac cacaaaagac agctacgtag gttaataaaa 120  
 aaaaaaacat atagatgcct tcactcttat atggaaacca cgcattacta tatgtatatg 180  
 tatgtatatt cataacaaaa acatcccaaa agatagatta totgaaacgt aattatacat 240  
 aaccacaaat aagatagaaa acagatctat ctaagtagct gaaccacaca acatgagtct 300  
 ccgggaggaa gtggcaagac cggaacggtc cctgggcttc acctttaaga ctttgaaggg 360  
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 gcatc 425

<210> 139  
 <211> 452  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-H5  
 <400> 139

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 tttgaatagt ttatgattat ttattacaaa tccatactac aattatacag tcttcaccga 120  
 tattttgaga accataatgt aaaaaagaga aagagaaaaa aatggaaaaa catgaaacaa 180  
 agtttgatga aatcacttcc agttgttggc aacaatgtca gccaaagtcaa caactctctg 240  
 tgagtaaccc cattcattat cataccaagc aatcacctta accatatcat ctcccataac 300  
 catagtgagt gatgaatcaa tggtcgttga aaaatccgga gcatctgaaa tcaacgggac 360

actantggnt caaccgcaag acaaccgagt aaaaccttaa agccccttcc ccngcaagaa 420  
tcttcctgaa agcaagcgtt ggacttcccc aa 452

<210> 140  
<211> 434  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-041-Q1-E1-A1  
  
<400> 140

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
nnnnnnnnnn nnnnnnaaaaa gaaaccatct tttcaattaa cttgcaagtt tcttnaagtt 180  
ttatagggaa gggaaagaag ggtcataacc cattacatca caccatacta agagagtagt 240  
aataagagag acatgagccc aatagatgag cccanatcaa cttttaatca nattacattt 300  
tgattaaaag aagcttcaat anttggggca acaagtgcaa ttgacncanc tgcaaaagga 360  
gcccacaactt gcacttgcaa nttggcgttg gtcccccccg gaacaaaggt ccaatgataa 420  
agggcccccn tgga 434

<210> 141  
<211> 398  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABL1-041-Q1-E1-A11  
  
<400> 141

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atcaaactta tgaaaccaat aatcatcaa cacgtgtctc atcaccaacc tcacacttca 180  
cctgcaccac ctccgacgtc agattctctg cttttctcct tcgtttcaac ttcccgtttt 240  
cagacgacga cgtagaagag gacgacgacg acgacgacga agaagatctc ttagacgtga 300  
tccgaaccgg gtcaggttca ccggaattaa ccctcaacgg aaaattcaat aaagcgcggy 360  
aaccacgcat cctaaaagca gctatatcgt aagctaaa 398



<210> 142  
 <211> 445  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-041-Q1-E1-A3  
  
 <400> 142

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gaaataaata ctccatatga cttaactta aaaatgggtca agaagagaga gatatgttcg 120
tagctgggag agagaggaga gaacaacaac taagaaaatt taagaaatgt aaatcgctga 180
tagacgacgg gtcaaaatca gatcaaagag tgccttgcaa aacaagaaaa cttttcttct 240
ccggtgatac tagtacggca gagcaaacac agcaacagaa ccgacttctt ttctcccttc 300
acagcagatc ggccacgttc gaaggnagct ccttcgacaa ccacaatggg agaatttctg 360
aatatcaaac aagcaatcct cctcatcatc acgggtcacg aaaattgatt cgcaacaacc 420
ctttctcccg aaaccttcca acttt 445
  
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<210> 143  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: ARABL1-041-Q1-E1-A4  
  
 <400> 143

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tgaaaattcc cactaagcac aacattacac cactccactt taccctaat ctctccacc 180
tcgctgtttt cactgcat ttccgcacac caaatctctg ttttctctgt tttctgcaag 240
aacagaacca atttcccacc ggtgtaactc acagttttgg accacttaca agccacaggc 300
aacaatcctt caaaccttt aacgactccc caagctctct gctttggatc ataagctctc 360
aaacaattct cacgaacatc atagtaatac aagacatcat ct 402
  
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<210> 144

<211> 397  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: ARABL1-041-Q1-E1-A8  
  
 <400> 144  
  
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 aaaaaaatct aatcttgatc ccaaatatga ctaaagaaat cagcaaaagt tggatgaagct 180  
 accaaactag taaagccagg acttcgaaac gggctcataa atcccgcgag cgagaataat 240  
 cccagtggta tagccggcga aaacatccca ccttgatgat acatcggaga gaatatcccg 300  
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<210> 145  
 <211> 118  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-B3  
  
 <400> 145  
  
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<210> 146  
 <211> 446  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-B5  
  
 <400> 146  
  
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 ccaaattgtat atgtatagtg agcaataaag aagaaaattt gcatattttt atcacatata 120  
 ggacaaaact ggaggacttc cactaaacca ccaccataaa ttaccaaaaga agaatgtcgt 180

caattcagag aaacttgaac atcatcatct tcatttataaa aattcgaatc agagaagctg 240  
 tgggtacaag acgttcangc cacttgggat aagcgcgctt gtacaaagtt caagcacact 300  
 acgtcaaggt tgggtgaanc aactccaatt ggatatgcat ttcattggcc ccaangttgt 360  
 gccnacnggg ttccttcacg cgaccacgaa cgcccgcat ttgaccatac ttcaacaggc 420  
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<210> 147  
 <211> 449  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-B6  
 <400> 147

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 gaacaagaac atctaaaacc ctctcaaaca cattcattta ctctaattat gattttcttc 180  
 tactaatgtc tttccctgaa aactctcctg atccaaatgt tgggtgccata tcgatgccgg 240  
 ttcctcctcc gactagagta gatagtcctg tacttggacc atttccgtta ccaaccgctc 300  
 tacctaaacc gaggaagtcn aatgtcggtg gttncggacc aaacaacgga tgaaatcccc 360  
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 ccnaagncaa ggagggaact aattgcgtn 449

<210> 148  
 <211> 378  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-B12  
 <400> 148

atcgtttact tagncgggcc ngaattcaaa ataacatttc cnttgnnctt cagganaggc 60  
 ctaanangaa aacaaataat tccaattcat atatgaacat ttttgctcc ttatttcttg 120  
 aaaatgtgga attggaattc cccgaggaat tccgatctca tttcctttgg cttcaggata 180

ggcctaataa gaaaacaaat aattccaatt catatatgaa catttttgcc tccttatttc 240  
 ttgaaaatgt ggaattggaa ttccccgagg aattccgata tcatttcctt tggcttcagg 300  
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 ttcttgaaaa tgtggaat 378

<210> 149  
 <211> 196  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-B7  
 <400> 149

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnncana 60  
 aatcaatttc atattaatat taacggtaca gtcttccccg gttcgggtta aaaccatggg 120  
 gtggattcnc aatanaaatg gttgtttatt atagagagga tgaagctcat gaagaacctt 180  
 ttcctcaagc tcgagc 196

<210> 150  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-B8  
 <400> 150

tttttttttt tttttttaaa atgacaatga tcaattacta tttagagacg accatataaa 60  
 gatttcgaaa tttcaatttg acatttccat aattagttct ggacttaatt agtcctagaa 120  
 actatattat gaaaacaaat aaaggtaaaa cacctttttc tcattggctc atgcatcaaa 180  
 aaccattttt caatctgttt tcaaaatcta caaaaaggca aaagaataaa gtaggaaaaa 240  
 aatcaacgag catgaggaaa tttgagcttc ttgggtttcg ttaaggagtt gcagaaagaa 300  
 gagaaagctc ctttgatttc atcatggatt gggatagcca acgagagcag cggtaaatca 360  
 tgttggggac tccggtttgt tgtccaaacg aagacagagt gagccaaagc cgtttgtcct 420  
 ttgttgagtc cctcaangga tg 442

<210> 151  
 <211> 390  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-B9

<400> 151

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tttttttttt tttttttttt tggtaaataat gttgagattt tgataataat gtaaaagtat   60
atcagacttg agatctgcgg ttgcaacaag atacagagaa cgattgaaca aagtgaggtc  120
accaagagaa cattgatgaa aaatatccaa cacacatgag ccgatgagtg ttccctgcca  180
caaatgttcc tccgctgcta gaggataagg gcttgaaatg ccagacacaa gcaagtcaca  240
actagctgtc ttcttccaag cctcctaatac tgggtacctg gattataact tataacagtc  300
cggaactctt ttccantttg caaaattgat aaggcttaaa cacacaaggg cnaanaccca  360
atacctcanc tgcattgtccc ctttgaactn                                     390
  
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<210> 152  
 <211> 446  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-C4

<400> 152

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tttttttttt tttttttttt gagattaaag ctattaacta taccaatcca agagcaagac   60
aaattaattt aagtactaga gagtagagat ccaaatacaa accataatat gttcgtctca  120
caaagtnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn  180
nnnnnnnnnn nnntcacatc acattcacat aaactcgtca taaatagacc atcccaattc  240
ccaaatggct tagaagcaaa tgtccagggc acaacagcaa cacatggccg caagacagcc  300
tttgaagaat ccgtcaccct tagacttggg ttccacttta ccctgagcta ccgaaccatg  360
actcggttgg ttagtccggg taaccaatcc ggcgggtggtg gtgatgtcan ggtagacatc  420
ggtggcggtg ggtaaccncc tgcaga                                     446
  
```

<210> 153

<211> 446  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-C7  
  
 <400> 153  
  
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 nnnnnnnnnn nnnnnnnnnn nnnaccaaca aaacccaaga caaacaagaa aataaaaacc 120  
 aattacatcg taccncncat tgattttatt acccttgncg ggattttatt tgaaaggggg 180  
 gataaattaa aaaaggacat catcaaagca gtacgtaaaa gtccgaacga tattacaaaa 240  
 agaaacacaa gatttgcnaa taaaatgagc ttcaacacac gtgtctcccg canaggcttt 300  
 gttaaattcn cactcaccat attcaggcgc ccgacggggg aagggacggt ggcacgctcg 360  
 gaatcgggat tgncccttga ggagcccaag ctccttgaaa aaangggcta aaacacgaag 420  
 ctccaaccgc caagccatcc ccaacc 446

<210> 154  
 <211> 426  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-D1  
  
 <400> 154  
  
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 nnnnnnnnnn nnnnnnnnnn nnnnnggcca ttgacattgn catttcttan aaaacacgaa 120  
 tatgtttaca cagggtgtta caatacgaan aagccaatgg tancgaaaga tggaaatatt 180  
 gtacgatata agagacataa aaacacatga gatgatgatc acctcagtgg aacttgaggc 240  
 tggatcaanac gttgttggtg acgggatcag ccaagtgatn aagcagggtc tgataaggnc 300  
 ccanaccggt cactaantcc ttgggataaa gtaaccgagg atggcgaaca ataaccaatc 360  
 taacgttctt gaactccctg agtttcaaac cccttcaatg acttcccaac ctttccaaaa 420  
 ccaaan 426

<210> 155

<211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-D10

<400> 155  
  
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 nnnnnnnnaa agagggtttca aacaaagaga tgataaaaca taggaatcta acttatttca 120  
 tggaagatcc ctatgtgaag aagtcnnnnn nnnnnnnnnn nnnnnnnnnn ntaaaaccga 180  
 gtctgtgagg gatcaaagga cacaaacttt catcccattg catatttctg agtccagctt 240  
 ctgcgagtag actcatactt tgctctatcg gttttgtaca tgtgaagcaa tctctggaac 300  
 caatggatca tctggggttg ggtccgttaa caatgaacat atcnaaagca anaaccttcg 360  
 atatggtgag tgcaggactc cattgttctt tcaaaatgtc aa 402

<210> 156  
 <211> 403  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: ARABL1-040-Q1-E1-D12

<400> 156  
  
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 ttaagataat taaacccgaa aaatcacaaa agccccaaa ttcaaagaga aagaatataa 120  
 aaaaaagcag aaccaaactg tttttttctt tttttcttat tgataccata atctttttta 180  
 gctctaagca gtagatccct tgagcttctt ggtgatgctg gcaatgtact ggccttggtg 240  
 aaatgcttgc tgtagctcca gctctgttgg ctgccttgaa cegtctctcg caaatgttcc 300  
 agtccatat gggcttccac ctttcacatt ctccatttcg aacattcccg cgccaaatgt 360  
 gtaaccgatt gggacaaata acatccccgt ggtgaaacaa gct 403

<210> 157  
 <211> 444  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations

<223> Clone ID: ARABL1-040-Q1-E1-D4

<400> 157

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ggtcacaaca taaaccatct tcagacacta agttcacaca caaacttcag ttcaagcatg 120  
aacttgaaaa gaacagctaa gatagttaca tgtcctctac acatatataa tttgaatata 180  
ttacataaaa cacacaaaac aaggattaaa acggtgcgta tcatgggata ccgatgatgg 240  
gcaagaaagg aacgtaataa ctggtcggag ccagccccc ctcgggagga actggtaaata 300  
caacggtctt ggacgaacta aaagattcga agccttcntg gacatgattc aagaagaaca 360  
acttggaag aanagaccat attttgtcac cgccaagcnt aacaatcctc cgacnttaac 420  
gttaattcct tgggaaanca taaa 444

<210> 158

<211> 407

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-040-Q1-E1-D9

<400> 158

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60  
nnnnnnnngg ccantgacat tgtcatttct tacaaaacac gaatatgttt acacagggtg 120  
ttacaatagc aagaagccaa tgggtancnaa agatggaaat attgtacgat acaagagaca 180  
taaaaacaca tgagatgatg atcacctcan tggaacttga ggctgggtcaa nacgttggtg 240  
ttgacgggat cagccaagtg atcaagcagg ttcngataag gnccacacacc ggtcactant 300  
ccttgggaaa agtaaccgga gggatgggga ancaaaacca atccaacgtt ccttgacccc 360  
cttgagtttt aanccctca aggnatttcc naccttccca aaaccca 407

<210> 159

<211> 443

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-040-Q1-E1-E7



<400> 159

nnnnnnnnnn nnnnnnnnnn nngatcgaat atacatgacc atacaaagct aaaataagac 60  
aacttggtgt ccaaatacaa agttaataa aagacaaggt gtgtaagaaa atacaaagct 120  
aaaaagatac atgtggtgga aacatacaaa gctaaaaaaa agacaacaaa gcaaacgaat 180  
catatgtctc ttttggcatc aagtggaaca tgagttgcaa gttacgtgtc tttgtctatc 240  
tttgtctcca accggtgatg ataaacttca ttgaagtgca taagacgaaa ttcctttaca 300  
gtttctcctt aactcacaac cacttgctta tccgccatta acactcacca aaagcataga 360  
gaanaaaaaac aacaattagc atttacagtt aactttccaa tttgattcaa tcacagaaaac 420  
aagatattaa acaacaaagt tta 443

<210> 160

<211> 423

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-040-Q1-E1-F1

<400> 160

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnan 120  
attaaagcaa aagcatcaac catcancaaa atccaacaag atagnгааag atccaaccgc 180  
cacttgcaac tanactanan aacncngaaa tacaaaaact tgcaaaacac agcccaaaac 240  
agaaactaac acacattgct taggggggaa aacagttttt tgggaaaaag aaaaaaatc 300  
cccgtcactt aaccaccng aaaaagacnc aaanancaat aaaaaaaaac aaagtaaggg 360  
nggcggaana ttagggcacc aatatttaaa accncccgca angtcaaaac ncaatcgga 420  
cca 423

<210> 161

<211> 427

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-040-Q1-E1-F2

<400> 161

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 atcgaatgat atctttccac caaagagaag aggttgtgta cataaaagac ctttgaatta 180  
 acctaaataa gaagataaga gaaaaataac tcacatttta tggtttatga atttgatatc 240  
 gaaagatctc ttacaagcca tgtaaaaaca agaattcccc cataatttta cagtcgtcca 300  
 aatcatcaat atgtcatcat ccttctcaat ttagtggtga atcaaccaca gcctcnggcc 360  
 ccctaataatc aaaaccttgg tccgccggtt aagagtacaa agaatgagaa gggaaccnt 420  
 tggttgc 427

<210> 162  
 <211> 89  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-04-Q1-B1-F8

<400> 162

nacataagac gggccgtcca cgcgtacgna anacggaat tcggctcgnn nnnnnnnnnn 60  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 89

<210> 163  
 <211> 436  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-04-Q1-B1-G1

<400> 163

cccgtacgta agancagaat tcggctcgag ggaagagatt gggtattgct aataagttaa 60  
 ggaggagagg aagatctatg tcagcttcga atttttactc gtggcaaac cctaattcaa 120  
 tgcctttact tgcactccaa gaacctaann nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnngctcag actcgaagtt gtttctgtct aagtagtttg cnnnnnnnnn 300

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnat caagtaacat tgtttccttt 360  
aatacttgnt tttaatttgn tcntcnctg tgaatttggt ttattaaagg gagaatttan 420  
aggaaaaaaa aaaaaa 436

<210> 164  
<211> 466  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-04-Q1-B1-G3  
<400> 164

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aaaatggaaa atattgagta tctgaatgag atccaagccg ttgcggggaa gctaataccac 120  
agctatggag tcccagttat gatcacgttg ttcctaagat ggctcgcgtc catcgttgca 180  
gtgtcagtca tgtctttcat attttaaaca tttggattta tgtttaattt ttaatttttt 240  
aatgttggtt tacttctttt atttgtgtgt aaagttttct tatgatattg gatcanacga 300  
aatggaagta ctcaaacaat ataatggctt cactattaac tccttacctc ctctctaacc 360  
ttcctantgt tatttttcaa ggtcttgang gaacgggggtt gggaaatgga tcgctctcct 420  
cacggttant ccaggcttt ttttaccaaa ccattttcaa tgaatc 466

<210> 165  
<211> 427  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-04-Q1-B1-G4  
<400> 165

anatcagaat tcggctcgag gttttaaata tcaaagccat gttttgggta aggaattaaa 60  
gagcaaaaac ctcgattccg atttcaaata ttcgaagggt aaatttcttc attttctgcg 120  
aatttggtag ctatcacgtt ctcaatctgg tgaattaggg cttttgttga gctgtggaag 180  
ctaatgatgg gtgtaccac cgctgaggaa ggtgggggtt ctctttgttg ctatgtcttg 240  
aaaccttagt ttgcttttgt caatgggtaa aaccgaggat gatgtgagtc tccgtgtcgc 300

cggcggcgaa gctaccggcg attcgacggt gaggaatgct cngtgtgggt gttgcaaag 360  
gatttcaaac ctcgttgggt' tcaaagtgtt aatcntgctg cttttaacaa tcnctttgtt 420  
tccttcc 427

<210> 166  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABL1-04-Q1-B1-G5  
<400> 166

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tgtgacagtt gaagcaatgg caaaggcctt tggcgtttct gtcgatttca tagaccagga 120  
gttgtcgcgc ttcattgctg ctgggaagct tcaactgtaag atagacaagg ttgcaggtgt 180  
tttgagagaca aaccgtcctg atgcaaagaa tgcactttac caggcaacaa tcaagcaagg 240  
ggattttcttg ctaaaccgaa tccagaagct gtctcgtgtg atcgatctgt gagcatgcta 300  
catgtttctg tttcactctt tcgtcaagct ttgcaacttg gaaactccga acggtagaat 360  
cttaagggtct gagaaacgat atgaactttg gattttgaga tgaatggctg 410

<210> 167  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 167

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aaacgcaaac gtgaccgga aaggctcgag caggagctg cgacatggga gaacagcaca 120  
caacatgtct tcatcgtcgc taaggaagaa atcagacctg agattgggtc agaaagttcc 180  
atgcaaaact ctcaagaaca ttctctctaa tcttcaagaa gtcattcttg gtactaagct 240  
tactctctta tttctcgcca tccctctcgc cattcntgcc aattcttaca actacggctg 300  
tccgttgata tttggactga gcttgatang gctgacacct ctagctgagc gagttagctt 360  
tttgacagag caactagctt tctacactgg tccaacagtg ggcggtttgt tga 413

<210> 168  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-04-Q1-B1-G7  
  
 <400> 168

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnng ttccaaaggg aacccttaag 120
aagagtctta gcaataccgt tgccgttagc cangtgagaa tccttangng nggcgaagaa 180
atccccaagg agacttcaga tctggttggt gaaatgtcag atntggggtc tactcgtcgg 240
attggaccaa gattnggggt tgattccggg tcagattcgt ttatctggcc gcaaactgaa 300
natcagcacc gttttacgcc ggtcctgtga ccatgacctc gccgcctcct agcgatgtcc 360
cgcttccaag ctttcttcac naanaangna acaaatgatn tcatcaggat ccttc 415
  
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<210> 169  
 <211> 453  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-04-Q1-B1-G8  
  
 <400> 169

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taaagatact acaaagtata cgacaacttc tttttttggt ttagtagtaata attatagcca 120
aaaatataga canacaaaat ggagagaaaag cctcttgaac ttgagtcgac ggataaccac 180
cagaatcett cctccgccgt atacggtggc tctgttacgg cggttgactc tgttgaagaa 240
gatgttcaga atcagaagaa agtcgtttat agaggctgga aagtcatgcc ctttattatt 300
ggaaatgaga catttgagaa gcttggggtc attgggaaca ctaacaaacc ttctggttta 360
tttaactgca gtcttcaacc tgaagangta ntacagctgc aancatcant aacgccttta 420
gtggcacaat taatttcgga actttcgttg ctg 453
  
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<210> 170  
 <211> 483  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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<400> 170

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ggggatgaat ccttggctcg ccagaagagc ataaagtngc nggcnaccg tacgtaagan   60
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cttccttcac tctcctcctt cttctcacct ctctctcttc aatctctctt cttcacgata  180
ctctccaatt tctctttacc caatccgata caaacgctat ttccgaatcc tctcgaagct  240
ttcactaaac gacaacaaca gagacgacga tgatgatact cttcatTTTA ctccgttctc  300
cgccgttaaa cctttcttcc tctctgtac ctccgtcgcg ttancgtttt cactcntcgc  360
cgcttctcnc gccgttgaat ctggctcggn gttttagttagt agtactccga agaaacttca  420
aactgatgaa gctcgcgaag gntcgtttgt ttcaagagaa cactccttcc gttggtttaca  480
tca                                                                    483
  
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<210> 171  
 <211> 452  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-04-Q1-B1-H3

<400> 171

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atgtcgtcgg tgatgggtga attgccgtcc ggtgtagtat ccggctttcg tctgacatat  180
attggcttcc acagcagtac atggtcggnc cntgtctagc atcatcggct ctttcagcgg  240
tgatggctag ctacgggtgt taatccggcg tagttcgggt tttcttttcc ttttggggna  300
acaccacggg ttacgtttcc gaccgttgat tgnntttana tnaagaactc attgggtatg  360
ngtgttgggn atcgccgtng gttttnaatn naagcctgct taattagatc caaantncaa  420
accnatcctt tgaaatttaa aggttacggn ta                                452
  
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<210> 172  
 <211> 477  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-04-Q1-B1-H4  
  
 <400> 172

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 gagcgatta atctctctct ctgtatcttc tcttgagtgg agcgaatata caaaagagtt 120  
 ccgagtttct ttcacccctc acgagcttat actttttcgg tctccattcg ttgtttttta 180  
 acgatnaaaa acaacggcga aggtattgga aataagacag aagctgttag ctctgtttct 240  
 ccatgggtgc aagatcttgt gctaattttc tagacttatc atcttgggac cttttagatt 300  
 ttctctaaac tccacgaact cttccacgcy tcatgnctgt tccgggaatc atcaccggac 360  
 gtttnacggt gatacancct cccgaaagta acttcgaact ccgggggttc acgtgagagg 420  
 gaagattatt gtancnaaca tgttnccact ncaatctaaa agagatgcag aanctgg 477

<210> 173  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-04-Q1-B1-H6  
  
 <400> 173

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 atcaagaaca tttcttttca atttctcgat tctttcnggc tcattctctc atctctgttt 120  
 catatctaaa ttattgattg agaattcgac ttgtggaaat ggcaacagtt gcatcaaata 180  
 tcgcttgat cggaagagta acgatgtcta gagctagttc aatggtagga tggaggttgc 240  
 agataaattg cagaaagaaa gagaaaggaa gagatcagag tcattatcct taaaaagtca 300  
 ttgaaatcac tctctctct aaatctctcg gnantccgtt ggctctctca ataaccttca 360  
 atgtggagag aacgtgatga tcgaagggca aacgtacaca atccctgctg tgac 414

<210> 174  
 <211> 459  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-04-Q1-B1-H8

<400> 174  
  
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 gagcggctcg agctcgagcc gctctcaaac cctaagagaa gaaaaatttg ctttgttttt 120  
 gccaaattca atcngatat caaagatgaa gatgggaggt tcaaagagaa gagtatcgag 180  
 caaaggactt ggagctgttc ttaaagaaca aagagctaag ctatacatca ttcgaagatg 240  
 tgtcgatcatg cttctttgtt ggcacgattg atcctcaatc tgtcttcana tttcatcctc 300  
 atcaatcttt atgtataaaa ggctttcgtg tgttgaggag agaagagtcg tgatgtttgg 360  
 agcttaagcg ggctggcggg atnggggttt tgattctacn cgaagatttg tggntgaatn 420  
 ggttaaagag tttgacttgt ttttgattaa acctctcta 459

<210> 175  
 <211> 392  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-A1

<400> 175  
  
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 tggttcatga gcatagagag gagcttcaac gcctaaatgc gtatattcag ggaggttact 120  
 aagatcttga ataatggaaa gaaaagagtt ccctgttgtg tcgtctgggc ttgtgctgct 180  
 gaatctgaaa agcttccaga tcagtgtaaa tannnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn ncaaaactaa ggccttgtgc 300  
 tgcttccctc cttgcgctaa cttagcaaga gataaaacca aaaaccctga tccctttatg 360  
 aaaaaaaaaa aaaaaaagcc caanccgaat tc 392

<210> 176  
 <211> 386



<212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-A3

<400> 176

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tttttttttt ttganctgca aatctggttg aagaaattaa gcaatataca gagttacaag   60
aattaagaag aataagatct aaatatctac acagagaaca taaggnnaga agaagaanag  120
aagcagaata atttcataac aagaaaaagg tattcaaggg agaaatccaa ataggaatgg  180
agaagggtaa gaagcgggtan aagggagaag accctggcgg aggacaggcg gagngatgtg  240
gagcacgggtg gttgaggtgt tgccgcataa caatctggga cggcttcagc caccaccact  300
acanactcca tacctatctt cattagctct atacacagct ccatcctttt atcaacaatt  360
ttcccctggt tttttttaat atcccc                                     386
  
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<210> 177  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-B1

<400> 177

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tttttttttt ttgttttgtt tttcattgat ataaatactt ggagtacacc tccttacaac   60
tagaaacaac atggaaacaa acgtggagta acaacttcta caaacttgga aaagatggaa  120
actgtaatcg tggagactc cttgcttatt gtaactaat cgaaaacaga gactaagtaa  180
aatgacttag tgttgggaat acttgggatt ggggcacgag agtcccttaa ggggccttct  240
ccttcctcnt cntcctctcc gtctggactc atcatattgt tgcataaatc gtctcctgt  300
ttgatatccc cgttttagcaa atttgtcaac aagcttcgag tcatcatcac ctgaacaatc  360
nccccggagan ttgcgcaaaa ttggtcaatg cttgcctcca ttaagaact ttccaaggat  420
ntt                                                                423
  
```

<210> 178  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-037-Q1-E1-F10

<400> 178

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taggatatta aacctcgtgt gatatggaag aaaataaact ttgactaat ttacatatgc 120  
aaaagttgta gtaacctgaa aaaaaaaaaag aattctaaaa acaaaggtat accttgtagg 180  
aaatttcgta ttatatagtt agaataaaga atgtactaaa tggaagaaaa aaatatatat 240  
atgaatctag ccgagactat caatggccaa caccgggact aggaacggat cggagatacc 300  
gatcaacggt gggagagatg tcgtgatcgg agctttccgg cgaagacggc cgcgtgacct 360  
ttttgctcgg tgtcgagttg ggaattttcc cctttgggaa a 401

<210> 179  
<211> 420  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-037-Q1-E1-F3

<400> 179

tttttttttt ttgaatctga actctgattt ttgaacaaac anatttacat gacataaagg 60  
tacaanggaa aaattaaatc tttttttttt tgnttnnnnn nnnnnnnnnn nnnnnnnnnn 120  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn atacacaaac cagaatgtta 180  
caaggagaac tctcaaacag cggctctcaa ggctcctctc gctgcntccc gtctcatttg 240  
atcttgtttc ccgctgcctc ggaagtacat atacacttgc ngantaaccc agatgctaac 300  
cactgattcc anggcaggaa aaatgcaaac ccaatgaagt agaatatccc ancaattgcn 360  
ttgaccactt aagacatcct agtgcaggna nagatncccg caagagattt ncctttgaag 420

<210> 180  
<211> 397  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-037-Q1-E1-F4

<400> 180

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tagtcattta caaaaaaaaaa gtcagtttag agcattatct ttgacaaacc acaattcttt 120

tgctgcaaag gttaacaaat tttcacatct tccttaactc ggcttgaaac ttttcgaggt 180

cttcaagctt tccatcaaaa gtcattgctg aaaactcttt gccatgggtc tttagcctct 240

ttacttttagc gctttcactt gctttcattc ttcttgtttt cagcctctcc acgcttgcac 300

gaagttccga tgccattttc gtcattctctt tgaatatttc atccataaga agactcatca 360

taagagctcc aaagcttcat taacgagtct caanaag 397

<210> 181

<211> 426

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-037-Q1-E1-E8

<400> 181

tttttttttt ttcttaaaac tctcattaaa aacaatgata aatcaaacat gcttcggttc 60

agcttgggta ctgttcttgc ccatctcaag cgcattccca tactcaccat cctccacaaa 120

ccttgaccaa taccagtgtg acctccacac ttgacctc tcctctatcg gaatcccttt 180

cgtctccggc aagaaaatgt atacaaagat cgacatcacc accacgaaaa aggcgaaaac 240

aaggaataac ccaaacttca aatgacaaag catcgtcaag aagatttgcg cgataatgaa 300

cgtgaagatc atgttcacgg acacggtgat actctgcgcc gccgacctta tctccaacgg 360

ggaagatttc actcgggtact aaccacccta gtgggccccca cgacnacgca aaanccggca 420

cattga 426

<210> 182

<211> 408

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-037-Q1-E1-F7

<400> 182

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 tcatacaagt ctagatgaac agtgatgagt anataggtaa aaggtagaga gtcgagagat 120  
 acagagaaaa gagaacagtg actagtagtt cattacaana atttgttgat gctgggttgc 180  
 aaagtgtctt tagagacagc accgangatt gtatccttct tctcaccatt gacaaagatc 240  
 atgatagttg ggatgcttct aacaccatac tggccanggg ttgcaggaga cncatcagt 300  
 ttaagtttgt agnaacttga actggccggc gtacttttgc ncnanttcgt tgacaatggg 360  
 atcaatcact ttgcaagggt cncacccatg gtgccccaaa agtccgnc 408

<210> 183  
 <211> 167  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-037-Q1-E1-F8  
 <400> 183

tttttttttt tttataaata cgagttccca tacacataaa atgaaaagaa accaaggtaa 60  
 gatatgtctc aagagtttta ttaagcatga gatgatgaaa atgttggttac caaatcttac 120  
 cttgggttct tttcatttta taaatacgag ttcccataca cataaaa 167

<210> 184  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-037-Q1-E1-G10  
 <400> 184

tttttttttt tttcagaatc agtaaaactt agaatgagcc acatgaagaa agagatttca 60  
 ttagcagtga agaaaaata gacaagcaag aaccgacgaa actctctctt gctctcaagt 120  
 ttgactcca attaataaaa tggcgacaca gtgaaaagaa aataatagtg tttttttttg 180  
 ccattgctct acgcctaaac tctctaaaac caatagagct ttttgtttca aaagcacatt 240  
 tacgcagcaa cagacacacg gggagcatca tccacgggtt tcgtagctct gttagcatca 300  
 tttccgccac caggtcttac tcgtccattg ttaccattgg cctcggggaa cccaccacca 360  
 tcaccatttg ctgggtttgc gtatccgctt cnattgtttc cc 402

<210> 185  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-037-Q1-E1-G6  
  
 <400> 185

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acaattgtgg aaatgacagt ttcagactca tccgttacat tttaacaaga atattgcctt  120
gtcttttttca ttagnactac aataaaagcg ataaggatag tantattgtg ttttctctgt  180
gtgatgnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn  240
nnnnnnnnnn nctttaaac ttgagaaaac gcagccagac gagtgcagg gcttttgtgt  300
agtggggaac acntcaattc tggctttgat cgacttcttc ancanatncc ctggtnngntt  360
gagaaagagt ttcaatcttg tctgaagcg tcacgacaag aatgatgggc atcatccaag  420
aangcttcca agac                                                         434
  
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<210> 186  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-037-Q1-E1-G7  
  
 <400> 186

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gatcaaagaa anaccaaata agatttcanc aaaagcanca aattgcaa atcaanacaan  120
gacattacaa ngggatttca gacaagagtc aaagnttcag gtcaaaacaa cccaatttca  180
aacataaagt cnacaanang ctcaaaagac aaaccaaagt gatcatcatc anttcttagc  240
agcagctcct tttcctcnag ctgcacnacc agaactcgca cctgcagctt gagcagcttt  300
cttagccgct ttcncttgca atgctttccc atctctttca cggcgttgcc ccgngtcaa  360
naccatcgtc accattcagt accctttcca ccagcacgag nggaagctct ttcacgggca  420
cgcnc                                                                    425
  
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<210> 187  
 <211> 141  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-037-Q1-E1-H1

<400> 187

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 caattttggt tgcttctttt gttacaaaag aagcaaaca aatcaaattc tggttcaaatt 120  
 aaggagaaaa aaaactcgag c 141

<210> 188  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-037-Q1-E1-H10

<400> 188

tttttttttt ttttttttaa gaaagaaagc acaacttta aaatccaatc cgtacattca 60  
 gacannnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnag cgggagagtc tccggtattt 300  
 tgttgccgga gctacttccc ggaaacattc ctctctcatc atctgttgcc agcaacgtat 360  
 tctttcccat ctggctagcc anaaactggg ttctctctc tc 402

<210> 189  
 <211> 394  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-037-Q1-E1-H11

<400> 189

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 gctataaaac tgcccctttg tttactaact agatatataa cgagtactgt ttaatttaat 180  
 ggtttgatat aactaaaaat taggagaaag agaagaagga gcgtttggca ggaggacgtc 240  
 caagggctct catgagatta gcaacttcaa ctacttttgc aacctctgtc cctctctttg 300  
 cctctgccgt cgctcttctc tcctccgctt tcctctgcgc ttccgccaca ttgttttgcg 360  
 tttctccat cgcttttgc tttctctcct ctag 394

<210> 190  
 <211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-037-Q1-E1-H12  
 <400> 190

tttttttttt tttgttgaaa gcttgattct ttctttttta tggctgaata tttcacaatc 60  
 caagcttgct atatacaaaa tagacaaagt tgcagacaac aaagtgtttg tttagatttg 120  
 atagtcgact tcatatgggt ttgtacctgc cctatagtaa caagcttcac attcaaacga 180  
 aggccgagat gcagcatcag tgattgcaat ctcatgtcga cgactactgt gattagtgc 240  
 atatgggtta ttgcagaatc tgcacttggg aagcacaagc caacattcaa gacacagaac 300  
 atcatcatta ccacacgctg cttcttgact ctcatgtcga gaaccaacaa ggnacactgc 360  
 gcactctgca catcctaagg atacaaagcc aagcatccac cggaa 405

<210> 191  
 <211> 426  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-037-Q1-E1-H5  
 <400> 191

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 gtgatccctt tttaaatttg tttgtttgt ctagcattat tatataaaat acgaattaaa 120

atcttacaaa tcataagatt gtttcccagt gaatttaacc tcaatgggac taacattttt 180  
 accgatggat ctcatgttta gtccaacacc ttctcttcct ggattcnctt tctctggata 240  
 aactccatct ttcgggtgaa gatattgaac ctctccgtta cgggaacact ctgtaaaact 300  
 ggtaangtga tcntgtactt tgacctcaac ctcgtagcna aagccaanac acgggttctt 360  
 tctctcncag tttcaagcag antcgggtcc gtctnctcat tancgcagc ctcctcccg 420  
 ntggca 426

<210> 192  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-038-Q1-E1-B5  
 <400> 192

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 ccatcaaagt tatcacaaaa ttcgaaagaa agagaaaggt agtttcagag aaaatggagg 120  
 acaaaagtta aaaataactc aatgaaaatc tgtttcccca taaaataaaa cttcaataga 180  
 agaagccgag aaccttgctt ccaacattct tcttcttagc ttcttcattg tccataatgc 240  
 cagcagatgt agtcagcacg atgtaaccaa actgtctaga agggagcaaa cgggcagctc 300  
 aaccttcaat ttccttgaca ccaacatcaa aacgtgggct gataacacca cacttggtca 360  
 accttccgtt caattcaacg acgatnttgc cagatctgtg gtcanc 406

<210> 193  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-038-Q1-E1-B9  
 <400> 193

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 tacacaaacc attatacatg ccaagattca aacatttctc atcagaaact gactaaaaag 120  
 gcttgctcgt gcagaagtcg cagaagcact taagaccgtc gcattttcca cctttcgcgc 180



ccttgtaaaa acgacaattt cgataacaca acgacggata aatcctagcc atacaatagc 240  
 ttaaaggcgc atcaatgtat ccttttagac attccttate tttcgcttct atctcaagat 300  
 atttcagagg tgaccaaaaa gaggattaaa aagattgcga agttagaaac tgacttcatt 360  
 gccatgccca tcttctctgt ctccggtagt cccccaance tcccccc 407

<210> 194  
 <211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-038-Q1-E1-C1  
 <400> 194

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 acaagatata cataacaaca caaacaaaat cacatagaag actctgtttc aagttccaac 120  
 aacacattat tcaaaaccca ctctttactt actcacttac tctcttctgc taagattagc 180  
 caagctcatc aagaattaat cccctgacga taataatgat cctacagcct cctccatgct 240  
 ctteccattt ggattcttgt tccattccaa cttttttcta aaagtctcca cgaatttctc 300  
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 attaacccan acataagttt caactttcaa cttctcanga attta 405

<210> 195  
 <211> 397  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-036-Q1-E1-F9  
 <400> 195

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 aacggagaca catggttgtt agtttctaaa acatgaagga tcattctgat tttgtattca 120  
 aagttcaaac caaaaaagaa cacgaaagca agagtcggaa acagagaaat gagcaaaaca 180  
 agctttttaga aaatcaacta gagaggagc gatctgggtga tgattcttca ttctctgca 240  
 gcacttgccg cactcaggtc aacacttagg tccagttgct ttccggtgat tagggatac 300  
 atgttcaaca catccgcaac agttgtctca aagtgtgttg tagcatcata gctcgttgaa 360

ataaagcagt tgtccaactc tggctccgtt gacaagg

397

<210> 196  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 196

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caaagagtta cttgaaaaga atttatagtt ctttttctac acattcaaag atgataaata 180  
actccacagc ttaaaggga gctttacttt acttttagct ttcttttttt gattttgttt 240  
tcttctgtac cggaagaant gaaacgatgt gtangataga tacattggtc ttcctccctt 300  
cacaaaatgg tgcattgtgca cattactgcc tttggtgcnt tatcaacctt cttctcngnt 360  
ttggnnttag ctagagaang gntgtacaac ancatgcac ccaatgnctc cac 413

<210> 197  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABL1-036-Q1-E1-G5  
  
<400> 197

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tacagaactc aataatccag cagtataag cttggcaaac gaacttgcaa tgggtaaagc 180  
cagaagctgc agccaaagct tcaaactcag ctcttgatct ctcttttcct ccggaacatt 240  
gtgtgaacat taacatgtcc atgtcaaagg caatgtttgc gttgatgtct ccattctctg 300  
cctcatcagg agtgactaat tctataacaa ctactttacc gctttctggt agtgatttcc 360  
aacaattctt aagaatcttg acacaatctt catcgggtcca atcatgaaag tatac 415

<210> 198

<211> 373  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 198  
  
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 atgttcatct tcgcgctagt agccaatgca acatatgttg gtagtattct tgtccgaaca 120  
 actgaatggg acaacatcaa accaaacctt ccttggttgc ttgatgctat tgtctgcgtc 180  
 gtactagatc tatttataat actgcagtat atctactaca agtattgcag gataaagagc 240  
 ttggaaagca gagaagaaga cgcctatgga gactatgttg aagcaancaa aacttttgtt 300  
 tcgtgaatca ctatttatgt tacaaggata atttgatttt cttttgatct taagtattat 360  
 tgatttaaaa naa 373

<210> 199  
 <211> 403  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-036-Q1-E1-G8  
  
 <400> 199  
  
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 ggaagagatt agaaatanag agagtgataa caattgaact cagtaaagaa tcanaaaagc 120  
 aaagagatcc aagattgcaa tttatgtccc agctggctaa taaaaacgaa catctaggaa 180  
 gtgtttgagc tatggattga ctatagcttg gatctgctcc aatgtcttcc cttttgtctc 240  
 aggcacgatg gcantgacga agacaatggc cagcgcgttg atggcancgt aaatgangaa 300  
 agttccgtaa ggagctccag gacatganga agttgaaagt gtaagaaana gccacgctc 360  
 caagancaag ttcaccagcg tcgccaatgc ngcctgctac ctc 403

<210> 200  
 <211> 286  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-036-Q1-E1-H3

<400> 200

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 cattgaaaat ttgaaatata tcaagaagat tcagatggaa gtttttttaa cattgtcaaa 120  
 aggagttcca atcgaacaaa gtgtacattt tggaaacaac ttgcttaccg tcatcgctgg 180  
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<210> 201  
 <211> 399  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-036-Q1-E1-H6

<400> 201

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 acaaagtnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnntcacat cacattcaca naaactcgtc ataaatanac catcccaatt 240  
 cccaaatggc ttangaanca aatgtccagg gcacaacagc aacacatggc cgcangacag 300  
 cctttgnaga atccgtcacc cttanacttg ggtttcacn ttagcctgag ctacngagag 360  
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<210> 202  
 <211> 404  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-037-Q1-E1-A12

<400> 202

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tccaatttaa gaccatanaa ggagaaaatc gtgtgaaaga caagacagat agacagacac 180  
 gaatattcag aannaaaaaa tttcttttct ctttctaaca ccacagattt cgcaatcgtg 240  
 ttttgatctg attcttccag gattctcccg gtggcggaga gaaganacag gggaaacca 300  
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<210> 203  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-037-Q1-E1-A5  
 <400> 203

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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn cgttttgggtt tcgttttctc 180  
 atctattatt ttctcaacca gatctaaca gatcccaac agctcagaaa catcaccgtc 240  
 ctcaaagatt cctccgcttg cctcagcctc tcaactcgccg ccgcacaaaa tcgactcgat 300  
 tccaagatct cctttaagcc tcttcaccga cgacgacgac gacgcactcc gtgggagacg 360  
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<210> 204  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 <223> Clone ID: ARABL1-037-Q1-E1-A8  
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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
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accaaataag actcttcttg atacaacaag acttgaatgg ttctcngttt ttgtcctctg 300  
 ataaaagact ccagcaaaa tcattcagat acgtgattta gtttctgcag tgttttgctt 360  
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<210> 205  
 <211> 432  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-037-Q1-E1-B4  
 <400> 205

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 tttaccacaa ncacaaagag cttcttttag ttctgatgga ttccacttgg ccatgtcaga 180  
 ttctttacag gctcnagaat agcttcaacc tcagacagag tttcntgatc catccccagn 240  
 ctttcaagct ctgtaactgc ngcancattt tcttcaacct gtgagacaga gctcatenga 300  
 atcaacaccg angaaatctc cttgtttgcn aaactgtatt gcagagcnta acnntgtgat 360  
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 canggggaac cg 432

<210> 206  
 <211> 418  
 <212> DNA  
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 gagcagatca cttagatggg tctctatggc tctcctcaa gctcaactct cagggtgtca 180  
 tatggatata ctctcggtgt aaatggaacc ttagaagctt tgtcgttcaa aacagcgagc 240  
 agaccgagac cancagagaa ccctaatccg ccaactcaacc atgccaatgc ttcatacttt 300

cgcacgggtat cagcaatccg atctatgcaa ggctctggaa acgcagtcnc gttgtccan 360  
atcagctcgt cgtttaancg atagcggntt atcggggacg atgtgtttgc cnacgggg 418

<210> 207  
<211> 400  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABL1-037-Q1-E1-C10  
  
<400> 207

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tatatatatg tagagaagaa acgaaaccac gcgcgaagac actcactcat tagaacaac 180  
tctttgaaca gagagtgata tctacgacca gccaaaccag taatcaagaa tatagaccag 240  
accaaggag aatgggtaaa gcaagtaagc tatgaaacat gtccaaagag gataagttgt 300  
gcggaactc gcgaaaccgc ccataccag acaaacgatg agaataacca acatttctga 360  
tgagaagttc catgtcagtc ctcgaacggt agacgattgc 400

<210> 208  
<211> 389  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-037-Q1-E1-D12  
  
<400> 208

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ctcgggaaca ttaagtatac tttaataaag acagttttaa gttttttttt ttaaaggatg 180  
aggatgatga atgcaagact tttatagggt caagctttcc gatttgatgg aaccacagaa 240  
acatggaagt antcctttcc attcctttgcc ggggttcact gtgatcggtt tcgcnacagc 300  
cgcgctttcc accgttacaa aacgcttana gnentcaact cccaaatcgg atacnttctt 360  
agcccatgga ttccanacca acggggatc 389

<210> 209  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-037-Q1-E1-D4  
  
 <400> 209

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aatccccac aacacaatct tctgtcactt ggctttatca gagctttgta tctctctttt 120
catctgtgtt tcatcatcat cgtctcgtgg aagctgcgag gaggagatcc ggtggaagac 180
ggtggtggag ctctgttgaa tctctcaggg ctaengctcc tttctcgctc tcttccccat 240
ccantgntgc ttctactgtc acggggaagc aaagctacct ctgccaccat aaccagagtc 300
gcccaaccag accacggggc gccnggaagg aggtcccaa cgactgaaat tttgttcaat 360
ccccancac cacgtgtagc catttcgncg gatntgaggg nggaactccc tggggttt 417
  
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<210> 210  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 210

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caagtgatct ctttctcaat tgcacatcaa atgaggtaac aattacaaca aaaactata 180
aacctcccc caattgtaat ctaagaaaaa atgaataact ttaaacaagt caaacttgat 240
ctcattgtan aaaatctgta agagaagctt gtatatcttc caatgttctt cctttagttt 300
cgggtaccat ccgcataant aangacnana ccgcaccac atanagtaaa cgtcgagncg 360
ggttcccgag cttacngtan gcgtggcagg gcgangtcat a 401
  
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<210> 211  
 <211> 411  
 <212> DNA



<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-037-Q1-E1-E6

<400> 211

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tttgttttat ctatcttaca catttgctga tgatcttcat atatagaacc accacacaaa 180

ggaaacttcc ttgaggaatt tatactcttt gtcttttcga gtcctatgct ggccggaacc 240

cttttaaaaa gccgagtcaa agatgatcag atcagcttaa acattctcaa aaccactttc 300

tcatggatta agtgagcttc tttcacctta taatccttat cccatatagt gttgtttcca 360

cacctaaga cgtatagtgg ncacaatttt cgtcacatgg gaccnatatt c 411

<210> 212

<211> 414

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-035-Q1-E1-H10

<400> 212

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cttattaaaa atgataacca ttgaaaatag tacttaagaa gattaaaaaa ccaaaagcaa 120

gaagagtcac agactcaaaa acataacaag acacaaagta cttaaagtag caaataaatt 180

acttgctaac attttcttct tcttttgtct ttcaaaagac agtttttttc ttcacattta 240

ctcancagcc ttctccactg gagctgtcac ggaggcttcn acggcgggtt tctctctctc 300

tgccctcngn ttctctctct cctccacaaa ccanntggag cttcctcgtt cttccgtnc 360

gnegnacgtc ntcccncctn tcttcgcnc taanaaacct ccgcccgnnt ttgg 414

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<211> 399

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-036-Q1-E1-A4

<400> 213

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aataacaatg gcttaaaatg agtttcaagc gtatataatc cataataact ggatcaaata 120  
gatatacaaa cacataaact ganaaacgca aagtcctcgc aagtacctct tcattttccac 180  
acaaaggcaa cacacttgct tagcacacac cattcatctt cntcctctcc ttcacaaact 240  
tcttccatcc aacagtaagc ttccatcaag aancnccttc gccatctncg tencctttac 300  
attttccgcg atcccttcta ntcccatnnt ctnagagatc ttggaagggc aaggtatcga 360  
gctcatgaag caccttcgaa atatcaggca anaagtcgc 399

<210> 214

<211> 424

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-036-Q1-E1-B2

<400> 214

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gaacataaat tatgcaagta gaaaacaaac ccagtanaag aaagccaaga ccagtttttag 180  
tttcgtttgc ctcgaaggac acccttacta cgacgattct tcatccccag cttaaacttc 240  
ttcttcaact tcttcccaat aggttttagc gacttgtttt tcttctcanc atcnatttcc 300  
ncatcacgag cgntggcgat tgtantggag gcangatgca tnactcanag gaaggcgctg 360  
canncttcca naancggaga aanctggggc ttgacgaacn gggnaacttcn ggggcagcga 420  
gatt 424

<210> 215

<211> 401

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-035-Q1-E1-G5

<400> 215

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 agaagaggaa gatttaatgt aatactcaac acctaattgat tctctaattgt cttcaaaatc 180  
 ttctgctctt cctcaactta cttttcctct gtttcaagag ttttttgccc attcacacta 240  
 caaatacaaa ntanncgcaa anacaatcaa ttctcatcta actttttaate cctccaattg 300  
 attgctctcn tccttcatct cttctaaagc taaaaacttt tcttcnact gacnctttcc 360  
 nanncnggc aganngaanc acttcacgca tggaaaanga a 401

<210> 216  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-036-Q1-E1-B3  
 <400> 216

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 aaaattgaag ctttgtaatg ttccattctc ttacacaaag atgctactat ctggagccac 180  
 tagaccctca agtttccatc caccaggccc ggacagcgca aaagcttctt cccaggagtt 240  
 gccaaaagcc tgaagcaaag cagcattgca tgttttcaac ttaatagaag ctccagagag 300  
 catggaagct gcttcttccc aacccttatt atgccccata cacatgatag tggagatata 360  
 aggggttgaa tatttgggag ataatgtttt gaagatgctc ggctgtttgg gcatccanaa 420  
 ca 422

<210> 217  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-036-Q1-E1-B4  
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actttattga tactgggatg aaacaataat aatagtaacg acatttatct tgtcactgcc 120  
ggaaatgcta taanagaaag aaaagaacaa aatctttatt atgaancttt ggtgtcatgg 180  
tggtgttcag tttctcagac ggctttgggtg acaacagcat ggatagcgtc tgcaagggtga 240  
ggtacagtct tcgaactcag accagccatg cttatcctcc cgtcagatgt catgtagatg 300  
tggtactctt tagtcangaa ggagacttna gctgggttta accctgtgaa ggtaaacata 360  
ccaatnctgc tntantgant gtgacgccag tctccaggag tcctccnagt acgtt 415

<210> 218  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana  
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<223> Clone ID: ARABL1-036-Q1-E1-B8  
<400> 218

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gaagtgacaa ataatcaact tcatttacat ctaaagttga aatttctatt cacttatcca 180  
aaagtactag gacaatatga ctcatcgggtg aaggcgtctg gtgctgacaa gttcaatgtc 240  
aaaaacgaga gttccaagag tagaaccttc tccattggcg agacgtgttg ggtaaatat 300  
agtcgtgaag agtctctgtc tgtcaaagaa gtttgggtgg gagaggctcc tgtgatgtat 360  
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<210> 219  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana  
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<223> Clone ID: ARABL1-036-Q1-E1-C2  
<400> 219

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aaaaggagtc aagagatata taacatacag tttttccgcg tatgtaatat gcacaaacca 180

aacgcaggaa tagaggaaga atttggaattt gatcnttaag atctcactca ntcttgatta 240  
ctttttgtca gttgncactc caacaanaac attgctcacc aactttccgc tttcancaac 300  
ggacatgggg ttttctaaaa caacggtttg ggtctgagag ggtggtgttg aanttgaggt 360  
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<210> 220  
<211> 409  
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<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-036-Q1-E1-C3  
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acagttcaag gaacgtgtca gaatcataaa gataagctga ggacacgtgt tacttccaca 180  
atctctgctg gatgagactt caaatcacgg tgaatcatag aacgtcgtcg gaaaacgaag 240  
ccgaacaacg aatcttcttt tttctcaccg attatggcaa tcacgagtat ggaggacaaa 300  
acatcaatat actgagcttt taaccagcta acttaggcgc agaactgtct tgacaactaa 360  
atcgaaagaa acatctagga ttcaacaaaa gctatcaaca nataaaccc 409

<210> 221  
<211> 392  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-036-Q1-E1-C4  
<400> 221

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nnnnnnnnnn nnnnnnnnnn nnnnnnnntc gttatgatta ccccaatcca atagactatg 180  
tatgtgtcgt atctctatat acatcnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnngccat cancnagaca ctgcatgacc ttgacctgca tacnaaggca 300

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<210> 222  
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<212> DNA  
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<400> 222

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gcatattgga agaaccttat accagtatca atatcaaacg agtcgtggct caaaaactcg 180  
catagtttct gcaaatatcc aactgaattc ttgggttcgt ctgtcttctt cccacttgca 240  
tacccttga gcttggaat gtacatgctg gatcttattg gaatcccaag tgcgttggat 300  
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cgggtattccc accatgactc taccaaggta ggatganata gggagctctg ggga 414

<210> 223  
<211> 412  
<212> DNA  
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<223> Clone ID: ARABL1-036-Q1-E1-D1  
  
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atccagcaat tacgcacacg acacaaacna nttttgtcat ccagtcacat ccanatctag 180  
aacacaaact anaaaatacg tatcgtnat gacnanaag ccattcagat tcaggggtan 240  
ttaccacgaa nagtacaat tggaagcga gggaaaggac gattccgaca aagggtaaat 300  
ncgtaagctt cacttanncc gntcttgngc atnctctctg taccttagga nacgaancta 360  
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<210> 224  
 <211> 397  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-036-Q1-E1-E9  
  
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atacagaaaa ttaatgaaag catttttgag aaagaaaatg catagatcaa atanaaatac  120
tataaggaac acccattccg gtaacaccat gctcagagggt aggcttcaaa agctcatact  180
taacaacacc agctccagct ctattcttta gagtaatggt caggtttctc tcatctatca  240
ctccttctag atattggagc ttgcctttga atctttcana tgcagcattg ataacagggt  300
cattggccca agatgcntct tgtngttctc caatgtactc ttccgtcagg tgaatgtggt  360
gataanagga tcaacgtgac catcactagg gtcgcct                                397
  
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<210> 225  
 <211> 423  
 <212> DNA  
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 <223> unsure at all n locations  
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aaaagtctta aacaacatta cattaactcc ttccacataa acagaaaagt cttaaacaac  180
attacataaa ctcttttcac acagacacaa aaggctcttt cntgctcaac gcatcaacac  240
tcttagttca agatttcacc tgtnatgggt gaaacatgtn ggctcntaca cntctgccca  300
tttttcgaac cgaccactac cataggcttt ggtgggtatca aaccggggcc tgaaaagcat  360
gcnttcacng tgtcngttgg ntgnnctcc aacagatnng caagnacctg gagtcgggcc  420
aaa                                                                423
  
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<210> 226  
 <211> 397  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-036-Q1-E1-F6

<400> 226

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tgtaataacca aaattagaga gaaaaatatc ttaataatth ttttcataac ttaaaaaaacg  120
taatagtttc gcagaaaaga ccttcagaaa gtgtaacaaa aaattataaa actaacaaaa  180
ttcaacaaaa gagaaacgaa agacagagat agcgaggctg aaggaccagg ggtctttact  240
agcccaacga agggaaactga gctgtgtctc caatcgccgg agctgcagct tcttttgcac  300
acctttgggtt tcttccttca ccacgaccac cgcgacctcc tcttcgcggg ggagcctcca  360
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-036-Q1-E1-F7

<400> 227

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taaatagtat agatatatca aacgatccaa ttcgggttca gtttagaaac cgtggatctt  180
gatctgatcc ttcttagcaa tcccagtttg gaccaagaac tgagacactt tcttcctttg  240
atcaccttga agctggatga tcttgcttag ttctttgtcc tgcacaacgt taccgttgca  300
gcagaaatct ttcttcaaat ccttngaat cctctccgta gctgtactct ttcttaagcc  360
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<210> 228  
 <211> 311  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
<223> Clone ID: ARABL1-030-Q1-B1-H1

<400> 228

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gttcacgctc tgtttgctga ggttcctgat agatacgggtg agagaaacgg tggatacacg 120  
aggatcatca gaactcttcc aaggagaggt gataatgctc caatggctta cattgagctt 180  
gtctaagggtc aatatctctt ttattttgct caattgtttc acttttgctc tgtaaatattg 240  
aaaaaacagt tgttgatgca gatatgagat cattttgttt ngtgaaacaa aatgatttca 300  
tanctgcatc a 311

<210> 229  
<211> 494  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-030-Q1-B1-H5

<400> 229

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ggtcaatgcg aatatcgga actctgctgt tgccagctct attgaagagg aagtctacaa 180  
ggttcagtgg gcaaccatgt ggggagctga tacaatcatg gatctctcaa ctgggtcgta 240  
catccatgag acacgtgagt ggatcctaag gaattcagct gtgcctgttg gtacgggtgcc 300  
tatttatcaa gcacttgaga aagtggatgg aattgctgag aatcttaact gggagggtttt 360  
cagagagact ctgattgaac aagctgagca aggggtgtaaa ctatttcaca tccatgcctg 420  
ganttttgcg gcntaaaatt cccttaatgg caancctttg aacnggattg nttccccttg 480  
anggttcaat caag 494

<210> 230  
<211> 421  
<212> DNA  
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<223> unsure at all n locations

<223> Clone ID: ARABL1-030-Q1-B1-H7

<400> 230

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cttattctca tccaaaacgc agggcttcaa tctcccacca ggaccaactc cgtttcctat 180  
cgtcggccat ctccacctag tgaaaccacc ggtccaccgt ctcttcgcc gcttcgctga 240  
aaaatacggc gacatcttct cctccgta cggtctcgc caagtcgtag tgatctcttc 300  
attgcctctc gtaagagaat ccttcaccgg tcaaaacgaa gtcatttaac aaacagaccg 360  
aatttcgga cggcaatan gtnnctaaga ataacacaat ataggaacgg cggcttangg 420  
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<210> 231

<211> 387

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-031-Q1-E1-A2

<400> 231

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catcaaactc aanattgaga naacaaaggt tctatcatga anaagctcaa gcattacatc 180  
aaactcaaca gtgacanaac aaagcttttt cncacaaaaa caatagataa cagtanaaac 240  
aaacatagaa aaacatagca aaccaaagan atttttcnct tttaaagtcn caaancttca 300  
anaacattgg aaaccangtt gaachattgt ggcaanaaag ttccccaagg tttccaaggg 360  
ttcttgaaga tttgaaacca tgagccc 387

<210> 232

<211> 408

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-031-Q1-E1-A7

<400> 232

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gggatgatga taataaaactt tgggtttttac tttttanttg gcacggctcc tgaaaacatc 180  
gagatccatc tctgttggat cagttgcctg tagctctact tgaatcccat ctaagttccc 240  
tcttgaacct gtccttggag ctgcgctaga tcatctngct tctcacctta gcaatatccg 300  
gacaccacgc gantgaagaa gatcttgctc ttctggcaan tctcagcaag ttacaaagtc 360  
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<210> 233

<211> 496

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-030-Q1-B1-G1

<400> 233

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aacagcatag ccaagacgac ccagaccgt cagcaagctt gcaattgcat tcaagggtgcc 180  
gctagagcct taggctctgg tctcaacgct ggccgtgcag ctggaattcc taaggcatgt 240  
ggagtcaata ttccttacia aatcagcacc agcaccaact gcaaaaccgt gaggtgatga 300  
gctagcaacg gtgagatgat gctactaccg gaagtttcga atccttatta tataatggat 360  
gagattaata ttaaataaga tgttcgaatg tttgntttta aagtttttaa tttcctgtcc 420  
ttttccaatg tgggtgtcct gttanatggg tttgtcngta ctatgttccc aagnaacaac 480  
gttatatgaa atttca 496

<210> 234

<211> 409

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-031-Q1-E1-C5

<400> 234

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aaaatntaat aacatgatca cncaagttga ccataccaca ccccttggat cttcacatcc 180  
tttggtacct tagcacccaa gtcagtatcc gacggctgaa gactctcgaa cactccgac 240  
acctctcctg tctccggctt gctctttgtc actttcagag tgatctctcc cactgaagcg 300  
gcangtggtc ttcangttct cctttacaag ctccnctcg tcnctctgc ctcatctgg 360  
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<210> 235

<211> 405

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-031-Q1-E1-D4

<400> 235

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acgaatcaat caaaatgcaa agttgatttt tctattaatc aacaagggtc acttgtgttc 180  
aagccaaatt ttaaacaagc caactaaatt tgagacgaga ttttcaaag atttatacca 240  
atcatatcat tggacaatga ccgtaaattc cgaaactctt gatgatcttg agagtgtatg 300  
tattcatgac caaggccagt tcgcatctcg ccacgcaaag cgacatcctc caaaactact 360  
actacaanca tctcccttta acccatcaaa attgttggtt ttaac 405

<210> 236

<211> 419

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-031-Q1-E1-D6

<400> 236

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 ttgatgtaat tcaacctcca gaactttaag tattaactta gaataacatg agaaaactag 180  
 tactgtccca aaaaaagaac catccccatt ggggttttaa ccagaaaacg aaaaggctct 240  
 ctaagcaact ggcattgctg gataatctgt ggtgggtaat ggagcttccg gtacaaaagc 300  
 agcttgagta acaacctgag cagggtgcaat gtatacatca tcttctttcg gtgtatggat 360  
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<210> 237  
 <211> 391  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-031-Q1-E1-E6  
 <400> 237

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 catcannccg ttttctcaca aaccaaganc accnaaaggc gttttcccn gcccggcctc 180  
 aaagtaaaan atcaacatgg caaccattgc gagcctcaan tgcttaatct ctgccaat 240  
 cagcctctcc agcttctcaa agtccggctc ataaacaccg tcgcggtttt tcccggcnag 300  
 acccaaggga tcgaagaatc tcccaacggg gtatcccgna tcgccgttac cagttccgcg 360  
 aaattctcgg ccgtcttcga ccangggcgt t 391

<210> 238  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 238

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 gcttttttgt tttgttttgt ttgatctctc tctctctctc gagtaagtca ttggaatcat 180

agacatataa gaatcagaca cttgcagggt cgaaatgatg attaaatctc taagcttctg 240  
gttccatagc tcaaccttgg ctatcgagat taccatggcc gctacttcct ccacttccat 300  
aagacacatc atcaccacca ccagctgaat tctgccaaac gctttgccat gcctgagaan 360  
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<210> 239  
<211> 383  
<212> DNA  
<213> Arabidopsis thaliana  
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<400> 239

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caaaaatggt acctaacaac atataacaat aaaccaagaa gttccaagtc tttggcctgt 180  
agtctcccta gacccaaata agacctcatt tattggtaac tatagcatgt cgaactagtgt 240  
gtagagttct aaacctctc aggaacaaat agctcacata gtagataatt cataattgta 300  
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taatccccgc tgtgtgccac ttn 383

<210> 240  
<211> 399  
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cgcttacgtt aactaacggc ggtggtgagc tccggcggcg atcggagctg gaggtggttt 180  
gcattggtag catttggcaa agaggccaaa agtatcaatt tgcctgatga agttgggtcat 240  
actggcccat ccgccaacc cgaacccgag aactaggacc caaaccacta tgaaagcgtt 300

tatcacgtaa actccagccc agctagggat aaaaaacggt ggtttctccg ccgcgttccg 360  
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<210> 241  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 241

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ttttggttgc accaataaac agcataagca atgaaagctt gaaacaaatc taattatgag 180  
attctcgggtg aaaataaaaac accacaaaac aagaatctcc aaagcaaactc tgataacatt 240  
acatacaaag ctgagttttt gacttattcg caagcaagtt ttgtgtcgaa actgctcaaa 300  
cagatagcga aagcctgaaa cgcagagagc ggataccgga aatccatcgt gaacangtct 360  
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<210> 242  
<211> 412  
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<400> 242

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ctacgcaaaa gttctttggt tcancggttt tttagatgaa tccacaaact ccagatcttt 180  
tactcggcaa agctctttct tcggtgagaa taaaccatca ttaataanct acacttgtct 240  
gaggttgctg gtgaataagg agctgcaaaa acttccatta natttcttta ntaacantta 300  
accggagaaa ggtactttat cancnccacg atcnactggg ttctctccann agtcatnncg 360  
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<210> 243  
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ggccgttttg aaggaatctt ttcaagaagc ttttcaattg gagttaatgg tgcagttggt 180
tcagcaacca cttccacaat cttagagaaa gaaagttgag gattctttgc catgcaagca 240
agcaactctg caacctggag atttgagacc tgaccaccaa acaatgtatc gtctagagca 300
agagtgagat catgagtttc tttgtatgca tcagtcgggc tctccattcc tccaggtcta 360
actattgctg aattaagacc gctttcaatc aatgcttctt cagcttttct cttccagcaa 420
aagaactccc cagaataggt tgagaatcnc agcgggaaat ccaaatttat ttgtcccaag 480
gatgtcacca aaaatgaaag ttattaactt ttgctgatgt tgcagcatca acaagggttt 540
tggttggtta aggttaaccg attctggtaa ggaccgggta atatccggaa atntcnttcc 600
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<210> 244  
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aagcgaacgg tgttcctttg cggattgcga tcgttcctgc gatcccttca tcgcncgac 180
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tcccttcttg ttctagcggg aatgatacaa acaacaatga ttcgagtaac ttcgaatgta 300  
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 ggccttggtt atacaaatgg ctccatctcc attctcaatc taaggactgt cctgtttgca 420  
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<210> 246  
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aggcgtcacc aagaagttgg atccgtcggc gactcatggt gttacgcaag ttctcaaatt 300  
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 gaa 423

<210> 247  
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 aagatctaca atcccaaagtg tcagctaaga gacgtatcat tgctctgaat aagaaagatt 240  
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<210> 248  
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<210> 249  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 agcgtgcagt gtctaagcta gcttatcttc ttggtataac catggttctc aacagtgtgc 180  
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 acttgggctg ttactacatt tttgggcctt ccctttggat atcttccctg gttacattgc 300  
 aaaacttttg agtgatggga actttgggcc tggaatgata accggggaca acgcttcaaa 360  
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gcagcagcct ggtcaccaaa tgtgggcgtt taatccangg aattatccag ttgggacang 300  
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 <223> Clone ID: ARABL1-030-Q1-B1-D6  
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 ttaaactcgc cggaagatgt attcgganaa taactaggac cggagccgtg ggccatgcaa 120  
 accgttggtta ctattccatt actacacagc ctacaggagc tactcatatn aagcattana 180  
 ctttggcaca aaagaggctc anaaacattg caagcatgga taccantcgt tggtcnaaaa 240  
 atcagganta cccatttget gatttttgagt tcccctccct ttgctttttc ancattctcg 300  
 aattctttgt gttggtcgga ggattcaaat gaanttttaa agcaaa 346

<210> 252  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-030-Q1-B1-D7  
 <400> 252

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 tttagttatg aaacaatagn gaccaaaaaa ttgccaagat tgttcttgaa tcttacttgt 120  
 gcattgtaaa tagagtctgt tagcaaactt tgaccattga gtattttgtg ctttgtgtct 180  
 agattcttga atcttattct atgggttattg gacttcataa atccattttg ttcttttagta 240  
 gttggtaccc aaatattgat ttttcaatag tttcagaaaa cagaccaaca tggaagatcg 300  
 gtgcttgatc aagaacgata tcaactgaatt gattggtaac acaccaatgg gtatcggaac 360  
 aatgttggtg atggggttgcg tggcncgtat cgctg 395

<210> 253  
 <211> 391  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-030-Q1-B1-D8  
  
 <400> 253

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 tctgtgacga taccaacata ttcaaattgga ccgctcttat caaaggacct tcggagactc 120  
 cttacgaagg cgggtgttttt cagcttgctt tttctgttcc tgaaccttat cctttgcaac 180  
 ctctcangt tcgattcttg accaagatat tccatcctaa atgtcatttc aaagacaggg 240  
 agaaatatgt ctccgacatt ttgaaagaat gctggagtcc tgcttggacg cctcaatctg 300  
 tgtgtaagag ctatcatanc attgatggnt caacctgaac cggacagtcc tccttaactg 360  
 cgactcaagg aatcctccaa agattcgggt g 391

<210> 254  
 <211> 363  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-030-Q1-B1-E6  
  
 <400> 254

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 gggaacagtt cagcgtanng gacaagaatg gtgatgggtca cattaccaca gaggagtctg 120  
 gtgccgtgat gcgttccctc ggttttaaacc tgaccaagc tgagcttcag gaggagatca 180  
 acgattcgga tttagatggg gacggaacca tcaatttcac tgagttcttg tgcgcaatgg 240  
 ctaaggacac ttactctgag aaagacctca ngatagattt cagactcttt gcatanacaa 300  
 gaatggtttc acctcactgt gaattgagat anttgaggac aacctccggg tggaaccaac 360  
 cng 363

<210> 255  
 <211> 468  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-030-Q1-B1-F3

<400> 255

tatgacgtng aaaacacgcn ttntttanch nccgantncg gtncaattnt cggcnggnat 60  
tcaactggtg ctgggggttaa tggcggtagt tccgtgattc atgatttcta tgctagagaa 120  
gtagncaacc caattcacct aactgtggat actgggttta ctaatgggtga ggtactatc 180  
aaagcttttg tctcttcaaa cctctcactc ggtgatcgac aactcgttgc acattttcaa 240  
gagattcctg ttgatctccg catggttgat gctgagagag tcggattcga tgtacttaag 300  
gcaacatctg ttgacaaact cccaaatgac ttggaaggaa tggagttaac aatggagagg 360  
ctgttaactc taatcaacga tgtctacaaa tatgttgaca gtgtcgtggg aagtcaaata 420  
gtccaagac aacaacattg gacgattcat tgcaaatgca gtaacctc 468

<210> 256

<211> 503

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-030-Q1-B1-F4

<400> 256

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tancnccgga attcggcnca aggttgattt ctataggaaa atcccaggagg atttgacaga 120  
ggcgtctctg tctggtgctg gattgtccat tatagcagnn ctctctatga tatttctatt 180  
tggaatggag ttgaataatt atttggctgt cagcacttcc acatcgggtca ttgttgacag 240  
gagcgtgac ggagacttct tgcgcttaga ttttaataata agcttcccgt cactttcatg 300  
tgaattcgca tctgtggatg tcagtgatgt attaggaact aacaggctaa atgtaacaaa 360  
gacaattcgg aagttttcta ttgattcgaa tatgagaccc actgggttctg agtttcatgc 420  
cggggaagtt ttatcactca ttaatcatgg agatgaaact ggtgaagaaa tagttgaaga 480  
ttcgggtacca cttactggac gca 503

<210> 257

<211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-030-Q1-B1-F6

<400> 257  
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 cgcnnngnat ctccatcatc gcactcttcg tctgcattcc tcttgccatc atcggtgaag 120  
 gtctctaaact acttaaccat ggtttcgccg acgcgattgc taaagttgga atgactaaat 180  
 tcatctctga tctcttctgg gttggntgtt ttaccatctc tacantcagc tggctaccaa 240  
 taccttggga gagggttgca acgctgaatc angcggttgg naacgttctg aaacgtgtgt 300  
 tcgtgatnng nttctccatc gttatcctcg ggaacaagat atcgacacaa acaggtatan 360  
 gaacaagnat aaccaatgct ggagttgcaa tgtntccat caata 405

<210> 258  
 <211> 473  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-030-Q1-B1-F7

<400> 258  
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 tgggtcaggg atatgcgcga agcgcggtgt cgtcgacggg cgacaccaca tgcttggtcg 120  
 tctagcttcc aacactgcga aggagttact taacggacag gaagtgggtg ttgtccgatg 180  
 tgaagagatt tgtctctcgg gaggtttggt tcgacaaaag atgaagtaca tgagattcct 240  
 taggaaacgt atgaacacta agccttctca tggtcctatt cactttcgtg ctccttccaa \* 300  
 gatcttctgg cgcactgttc gcgggatgat tccacacaag accaaagcgt ggtgctgctg 360  
 cacttgcccg cttgaaaggg tttttgaggg aatcccaacc tccttacgac aagattaaag 420  
 anaatgggtt aatcctgatg ctcttaaggg ttttgagact tcaaantggt cac 473

<210> 259  
 <211> 325  
 <212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-03-Q1-B1-F9

<400> 259

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aaatggtcag ggagtttagaa acagtgtctgc aactacttga gtttgcccaa gaaaccctaa 120  
taagaaacct atttgttgac tattttgact ttgtaccctt cttgatatac ctatcaatca 180  
ccattgtcca cgtgtactag tttcgttgta gtaattttca aagtttatcg aagtatgcgt 240  
attcgaggat taattaaatc gggaattaca ttttctgag ttaatttttt ctctttttct 300  
tttactaaaa aaaaaaaaaa aaggg 325

<210> 260

<211> 459

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-03-Q1-B1-G1

<400> 260

tggnacgcca gaagagctca anagtcgagg ncncccgtag gtaagancgg aattcggctc 60  
gagctcgagc cgctcgtggag gagatatgca attgctgacg ctaaataccgg cggccatttc 120  
caggacgccc ccgcaagcca tagacccttc ctcatcctcg agtcttcttc ttctttttcc 180  
tcagattttg agctcccaac gcgctcttgg tcttgtagct aggccttgta atccacttcg 240  
acgaggatta tctaggtttt tatcaagtcg acagcttttc cgacgatcca aagttgtcaa 300  
ggcagtagca accccagacc ccatcttgga agtaccttta actgaggaaa atgtagaaag 360  
cgttttggat gaaatccgac cttaccttat gtctgatggg ggtaatgtgg cattacatga 420  
gatcgatgga aatattgtgc gggttaagct gcaaggaac 459

<210> 261

<211> 399

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-03-Q1-B1-G12



<400> 261

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accagtgggtt acaacactat gagcaacaaa atattcaaga gattactccg tgcttcaacg 120  
ccattaacat cgcgtcatcg tcgggatctt cccttggaga cggtggtgcc gcggcacatg 180  
aagctgctgg aaggagatct agggcttcga ggagagccat accaacaacc ctctaaacg 240  
caaaccctag caatttcga gccctagttc agaaatttac cggacgttct gccggaggtg 300  
aatccaaccg cagaaaagggt ccggtgactt tggatttcgg gtctcccact acaatctcca 360  
aagaagctat ctttccagtc tcaagcgatn gaagtaata 399

<210> 262

<211> 473

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-03-Q1-B1-G3

<400> 262

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aattcggctc gagcacattc ctttactcac tctctctctc tctctaaaaa cagagctcaa 120  
caataatgat ccactaaaaa agattctctt ttctcttctt ctccgggtgat ttacttactt 180  
aacaatcatg gcgtcgtcgg agggattagc aagcgttgat ccttggtcat tccgtcaaaa 240  
cttcaacatc gattcgtggc tactctctga ttcttctca cagacagtg atatactcgc 300  
taaagctctt cacagatcca tctccacttc caccgaatca tctctcttt ctcttcatc 360  
tttcttcgac tcttcaaccg ccgccgtcga ttttctcct cctcaaactc tctccaacgt 420  
ctctttcggg tcaagattca agaaatcccg gcgctagtgc tcctgggnct cgg 473

<210> 263

<211> 400

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-03-Q1-B1-G6

<400> 263

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gataaactac ggatatactc gaactctatc catttacggg attgatttgg aaatatggac 120  
aagtatgacg ttgtcaagga tctgggagct ggaaatttcg gtgtggctcg cttctcagg 180  
cacaaggaca ccaaagagct tgttgccatg aaatacatcg agagaggctg caagatagat 240  
gagaacgtgg cgagagagat tattaatcac agatcactta aacatcctaa tatcatccgg 300  
ttcaaggagg tgatcctgac acctactcat cntgctattg tgatggagta tgcttcctgg 360  
angaaanctc ctttgatnga aactgtactg gccggtaaat 400

<210> 264  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-G8  
<400> 264

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tccagatcct ttagcagggg aacagacatg gccaacagag gaagaaatgg ctgaggctga 120  
caaaaatcag aagcagggca ggctaaagaa gaagactttg ccgagaggga cttcagaata 180  
tcaggctgct tggattgtgg atgaaacaga tgaagaggat tccgataatg gtgattctga 240  
tgataatggt atggtattgg atagaggaga ggattccaat caagaaggga ttttattgac 300  
caaagaattt tgagggatga cgggaaatcc attgaancct gcgggataat tgatactgaa 360  
aactcaagaa tgaatcccg aattggtgga cgaattgaaa gacttgacaa gaagaa 416

<210> 265  
<211> 468  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-F8  
<400> 265

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ttcggtcga gctcgaactc actactcttc agccgtcgac gccgcatccg ttccatttcc 120

gagaagccgg agtacttcct ccgccttctc ttcctctgcc tcttctcgga gaagatcttc 180  
ggatttcact ttcgacgatg attatagcga gctgcttaga gctgcttccg ttaggagttt 240  
aggtcataag aatgagattg acatgatnat annnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
nnnnnnnnnn ngcgttgca tgggagcggg tacgggttaa ggcgggttgc ctaagagctc 360  
gagtgttggg atgacaatgg ctangattga tgaaagaaag atgaagaaga aggntntgta 420  
aagaatcaaa aagaagggat tctggatttc ctaaancctc cggagcaa 468

<210> 266  
<211> 361  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-G9

<400> 266

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gtggggactc tgcttttcaa tctttttctt cttgctagtg atgaaaaatt gttgctacat 180  
tttcagatgt gaatgttcaa gattctctat cttttttttt tttttgaact ctttttaact 240  
tggagtgggt tccccaaaaa taagatgcaa aactcatctt tttgttggtt ttctatcttt 300  
aatctgtgnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnngg 360  
g 361

<210> 267  
<211> 460  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-H1

<400> 267

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cgagaatctt tcagtgggaa gagaatgggt tgctcgggcg gtgggtttcc tcaattgcag 120  
aagctttcaa tacgggaaat agagtgggaa gagtggatag tagaacaagg ctccatgccc 180

cttcttcata ctctctatat cggggtttgt ccaaacttaa aggagcttcc tgatgggctg 240  
cgatttatct attcattaaa aaatttgata gtatcaaaaa gatggaagaa gagattgtcg 300  
gaaggaggag aagattatta caaagtccaa cacattcctt ctgttgaatt cgacgactag 360  
gaatgctctc agcaatcaca gaagccagga gtctcataag cctctgtttc caccctaaat 420  
cangtccgaa gataattgca aggtaaggaa nctaatacaa 460

<210> 268  
<211> 438  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-H2  
<400> 268

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aacttttgca agaagagatt gtggatgaaa ctgatgaata tgttgacgta cataaaagga 120  
ttcgagtagc agcagcagcg gctgcttcat caatagcgag agctccttca agccggaagt 180  
tgcttgcgca aaagggaaact ggaggacaaa ataagcaagg gcagacgaat aaagttcctg 240  
gtcaggaaca agataaaatg cttggaacta ttaccgagcc gattcgaaga aacaactgat 300  
gttgtgttct tgcttaagga ggcaaaaact ctgttgcggt ataaagaaag aaaacaaaga 360  
ataaattata agattcaagt tccttctgta tactttgatt catcacataa attatntata 420  
tataaaaata ttaaaaag 438

<210> 269  
<211> 462  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-H6  
<400> 269

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gctcgagtcc agatgctgag atttgggagg ttcttgga ggtgcaacta aaagaagtgg 120  
ttcaagaaaa agagaacggc ttagattcat tagttgtgga ggatggatca aattggagca 180

tgggacagag acagttgttc tgtttaggca gagcagtttt gagaagaagc agagtattag 240  
 tcctggacga agccacggca tcgatagata atgcaacaga tttgatactt cagaaaacaa 300  
 tcaggcgaga atttgcagat tgcactgtca ttacagttgc tcaccgtatc cctaccgtta 360  
 tggattgtac aatggttctc tccatcagcg acggacggat tgtggagtat gatgagccaa 420  
 tgaaagtuga tgaaggatga gaactccttg ttcgggaaag cc 462

<210> 270  
 <211> 133  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-030-Q1-B1-B1  
 <400> 270

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 nncggaatnc ggtncaannc caaccggnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnn 133

<210> 271  
 <211> 365  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-030-Q1-B1-B3  
 <400> 271

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 ttccttcgtc tactattgga aatcatcccc aatcgcgatt gcggtgatat gcaacctttg 120  
 cgcaggagat ggtatggctg acattgtggg tcggcgggtt ggaacagaga agcttcctta 180  
 caacaaaaac aaatcatttg ctggtagcat tggaatgggc accgccgggt ttctagcatc 240  
 tgttgcgtat atgtactact ttgcttcatt tggttacatc gaaggatagc gggggaatga 300  
 tcctccgttc ccccgtcanc cccaaagcat caactcctgt gggatcaatc ccaatnagca 360  
 acggc 365

<210> 272

<211> 427  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-030-Q1-B1-B4

<400> 272

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cttacaagnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120
nnnnnnncag atctgatttc atagtcaacg agaaccaacc tttaacctgat ccggttttgg 180
cttcttctac tcttcagact attaaacgtg gtcgtggctg acctccaaaa gctaaaccag 240
atgttgttca acctcaacct ctgactaatg gaaaactcac ctgggaacag agtgaattac 300
ctgtctctcg accagaggag atacagatac agccgccaca gttaccgtta cagccacagc 360
agccgggttaa gagaccgccg ggtcgtccta gaaaaagatg gaacttcgcc gacggtgaag 420
ccaagct 427
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<210> 273  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-030-Q1-B1-B5

<400> 273

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gagtagaagg gtggactgcc atgatttcga tcgggtttta cgctgcgatt agtgtgagag 60
tatcgaatga gctgggtgca ggaaacgcag cgtagccaa attctcagtg atagtcgtct 120
ccataacttc aactcttatt gggatagtgt gcatgattgt tgtcttagcc acaaaagaca 180
gcttcctta tcttttcaact tcaagcgaag ctgtggcagc agaaaccacg agaatagccg 240
tcttggtggg cttcactgtc ctcttgaaca gcctccagcc cgtcttgta ggggttgccg 300
gttgagcgg ggtggcaggc tctggttgca tacgtgaaca ttgcgtgtta ttacattatc 360
ggactacctg ctggccttgt tcttgatca aactanactc g 401
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<210> 274  
 <211> 224  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-030-Q1-B1-B6

<400> 274

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ctgagtaaaa ctttgtattn gtttgaatg ttttggtagt ttcattgtgaa tcttgtgaaa 120  
ggtgtttgtt aatatttgtg aatcacgttn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nngg 224

<210> 275

<211> 525

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-030-Q1-B1-C2

<400> 275

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aangaacgc ttacgttaag ctcggaattc ggctcgagga aataatcaa acttaaaaac 120  
tatcagaatg ggaacgttct taggacactt tgtgcctggt ctctcacttg ctcttcntgg 180  
tctttggcat ctctcaaca ccataagatc ttactgtctt aaaggccctg aagctttctc 240  
tgcaaaattc tggttccctt tccctaaact caaacatctt gagcttatct tgattctctt 300  
cttctccttc ctctccatca ctctcctcac cctagatttc cctaatttca acttctcctc 360  
tctcaaacca gacaacctan aaaaatggct ccaatggctc tccaactcaa tanccttggc 420  
gtgtttcgct cctcttcggg cgaagctaaa cctttgctca agatttctc tccggtccaa 480  
tcggagtcc ttccggtcc gtctcgctc aagaactcct ccttc 525

<210> 276

<211> 374

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-028-Q1-B1-C7

<400> 276

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 gcggctggtg ttaaattgat agctggttga gttggaactc ctgacaaggc tcgtatactt 120  
 gcaactcggg taccttttcc catggaatgt cnttatgcgg atcctgaacg caaggcatat 180  
 gatgttcttg gtttatactt cggtttgggc cgcactttct tcaacccanc tagcaccaag 240  
 gtcttctcaa gatttagcga nattcgagaa gcaacaantn attacaccan anaaagccac 300  
 tcctgaagac agaancagtg tgttgcanca nggangtacn tttgtgttca gaggcaagaa 360  
 attantgtac gggc 374

<210> 277  
 <211> 342  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-028-Q1-B1-D5

<400> 277

gacgattct tcttcgtctc tctccgagtg anatanacc ttgatttcac tanagaaagt 60  
 tttttttttg tgatcgggaa ttgaatcttc ttatcatgaa ttatcttctt ggagctttca 120  
 anccagcatg taatatttca atcacattta nngatgggaa aaaccgtaaa caggtagcca 180  
 ctaagaaaga taagggacaa atagttatga atccactttt ccagagtcaa gaaactantg 240  
 ctgggaagat taacattgaa ccatatcaag gaaaaaaagt ggagcataat ggtgtaaaag 300  
 ttgagcttct tgggtcaaag gaaatgtact ttgacagagg aa 342

<210> 278  
 <211> 196  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-028-Q1-B1-D6

<400> 278

ggataaagan ggcgaggaag attaccgagg gagcanaagg cgataataat atgggccact 60  
 cttggttata ttattacagc tacaggactc attttgtatc tgtttcgttg agtgggggat 120  
 gatatgcctt gtattcaaga gaagagagac acggttgatt tcaacaaagc ttatattgat 180



aaaaaaanaa naaang

196

<210> 279  
<211> 385  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-C6  
  
<400> 279

caaaatccat agcaatggcn acttcgatag ctcnattgtc tcggagagga gtcanttcta 60  
acctgatccg tcgttgcttc gctgcggaag cggcgttggc gaggaagaca gagttaccta 120  
naccgcaatt cacggtgtcg ccgtcgacgg atcntgtgaa atgggactac agaggnaaac 180  
gacagatcat tcctttggga cagtggcttc cgaacgtagc cgttgatgct tacgtggcac 240  
ccaacgttgt gctggcnggt caggtcanag tctgggaagg ctccgtccgt ttggaaaggt 300  
gccgttttgc gccggnatnt caacaaaatc actggttggga ntccgctcna aatgtncnaag 360  
gaaccgtgtg ttgttcacgc cncct 385

<210> 280  
<211> 368  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-D7  
  
<400> 280

tcgggtcggg tcttttgaag ttcttcaatg gcgcagatac tttccctgt ttgtacggat 60  
cttttgaagt tccanaactc agctcttanc tccagatcag gtgcgtcgcc gcggttctcg 120  
gcgaagacca ccggtgcttc ttcattcttg nacttacctc ggtacgcagg aaagaggcga 180  
accgattcaa tcggaatgat tgagagttgc aactgaggat gcttcttctc tttccaccgg 240  
tgatgtcgcc gatgattact atgccgttct cggactcctt ccagatgcta cgcagtagga 300  
gattaannnn agcttactan aactgtatga aaatcgtgnc agcnanactt nagtggcaat 360  
gacccccg 368

<210> 281  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-028-Q1-B1-F1  
  
 <400> 281

gagagagaat ctctccggcg agatcaccgg cgttattccg ataatttcgc ctgagagttg 60  
 tcgcatgtta taaatggggn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnnnnnnnnn ggtgtagtan cggaagcggg ggatttagga gtagttctaa 180  
 gcttttcgat tctccggcgt gttcgagatc ggatttgaag aaacgtagcg ggaagagaaa 240  
 ttcacgggta aacggacttt cgtagagaa attaaggctn attaaagcat cgtcngtcct 300  
 tcccggctgg gacaaganca antanccgaa agttgatcga acgaacggga gaanccggcn 360  
 ggcgccttgg gtttaanctg gtttaactca anggagaatg ttaaccgtcc ggtttgggaa 420  
 aa 422

<210> 282  
 <211> 61  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-028-Q1-B1-F10  
  
 <400> 282

gnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60  
 g 61

<210> 283  
 <211> 365  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-028-Q1-B1-F12  
  
 <400> 283

tgacaaaaac accctcctca agatcaagaa atctctaaac aacccttata acctcgcttc 60

atgggaccct caaaccgact gttgctcctg gtactgcctt gagtgcggcg acgccaccgt 120  
taaccaccgt gttacgcct taaccatatt ctccggccag atctccggtc agatcccggc 180  
tgaagtcggt gacttgccgt atcttgagac ccttgtcttc cgcaaactct ctaacctcac 240  
cggtacaatc caanccanca tcgccaaact caagaacctc cgaatgctca ngctcagctg 300  
gacgaatctg acangtcnaa ttcctgactt tatnagtcn ctcangaatc tcgagttctt 360  
aaaac 365

<210> 284  
<211> 381  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-F3  
<400> 284

cgaaggacaa aaccgagaga cgcggcgaga aagacngtga cttgangtgg tctatgggtg 60  
gtgggtgggaa tctcgtcgac ggnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
nnnnnnnnnn nnnnnnnaac aataataata ataatcacga acaaccatt ttcaattctt 180  
cttcnttctc ttcttctctt aacccaatc attccgctaa ntctggagag cttattattg 240  
aanaagatct cgatttctct ggtctaacgc ttattaacgt tcctaaacgt tatcatttac 300  
ctaaggattc tcacaagaan ggggaaactg aattctcacg gggatatggan aanctaacaa 360  
ggtacaaaatt caaganggtg g 381

<210> 285  
<211> 408  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-F4  
<400> 285

gagaattaag tggaaatgaa gaagaggaag attcatcata gcgacgacga agaggacgac 60  
actttctact atcgnnattc ctccgtcgcg gcaccaccac cttcgaaccc taaacaccaa 120  
ccttcttctt ccgccaaatc atcagctccc ggcggcggat ctggcggctt agctccttca 180

aatcaacac tctacgtctc caatctcgat ttctccctca ccaattccga catccacact 240  
ctattctcca ctttcggcaa ggtcgcgaga gtcactgttc tcaaagattg ccaaactccg 300  
caaatctcgt ggggtcncgt tcgtgctcca acgtctctcg tgaaagaccc gctaaaagcg 360  
gggcgttcta atgggacgcc aaagnattct taaatgggcc gggnaact 408

<210> 286  
<211> 375  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-F7  
<400> 286

aggataagtt gaaacaaaag gttgtgacaa ttgatagcta tgctggtgta aaatcaaattg 60  
atgagaaaagc gttaatggag gctgtagcgg ctccagccagt tagtggtggc atctgtggaa 120  
gcgagagagc gtttcagcta tattctagtg gaatattctc tggcccggtg tcgacatcat 180  
tggtatcatgc tgtgctcata gtaggatatg gttcacagaa tgggtgtgat tattggattg 240  
tgaaaaactc atggggaaaa agttggggaa atggatgggt ttatgcacat gcagcgttac 300  
actgaaaaat cagacggngt ttgcggaatc aacatgcttg cttcatatcc atcaagacac 360  
atcaaaccg cctca 375

<210> 287  
<211> 359  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-F9  
<400> 287

tggtgagcag attgacattt gtgaaatata taaaatgggtg gttgatgtgg ctaagcagta 60  
tttcctaatt gtagcagttg gntacgagga tccncgtgtc aacctcatca ntggcgatgg 120  
tggtgctttc ttgaanaacg ctgctgaang aacctatgat gcanttattg ttgattcatc 180  
tgatccaatc ggtccagcaa aagagctant tgagaaacct ttctttgagt cagtgaatag 240  
agctcttcgt cctgggtggga gttgtgtgca cacaagctga aagcttgtgg cttcacatgg 300

atatcattga ngacattggt tctaattgcc gtgacatcgt taaangatct gttaactac 359

<210> 288  
<211> 360  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-G11  
  
<400> 288

ttttttgaca gccactgggc catctgggcc tgttactcca gatggtgtgt ggaaatcccc 60  
ggcagacact ccttctcag tgccattatt ctctctcct gccaaagctg ctacgtttgg 120  
tcatggtggg aacaaatcat ttggagtatc tattggatca gccttttggc ccaccaatgc 180  
agatagtgcg gctgaatcct ttgcttcagc gtttaacaat gaatctactg aaaagaaaca 240  
aactaatgga aatgtctgta ggctttttgg gtttgagcta gttgaaaatg ttaatgtgga 300  
tgaatgtttc tctgctgcct ctgtgtctgg tgcngtcgct gtagattaaa ctgtcccaat 360

<210> 289  
<211> 324  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-G7  
  
<400> 289

aaggaattgt ttgttggtta aatgtttctt acgcgatttg tcgggaggag attcttggcg 60  
gctgcatcgg cgcgatcgga gtccactaca gcagcagcag ctgcctcgac gattcggacg 120  
ccaacaaatc cactcgaaga gttctttgag ttgcacagaa gccaagacga agataaacct 180  
gttgtctatg gtcgagggtg ggaaagcttc agagctgcgt ctcaagtcac gggatgatct 240  
tcagaagctg tgggaacggt cntctcaang agaanaacat gtttgaagga ctacgcgtca 300  
gatgccttaa ggctcaanaa catg 324

<210> 290  
<211> 387  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-H1

<400> 290

ctccttcttc ttcttagctc tcttcctcca ttatcgtatt atcgtagctt ctccattcga 60  
aggatttgat gctgaagaag acgacgttac cgacgattcc tctcaccttc ttcaccactc 120  
actccctccg cctctttctca ctcaagtctca ctcatcactc tccgatcccg atccggagcc 180  
ggaaccttct tccgccgaat gtaaattccga tctcatcact gaatcagatc tcgagcatca 240  
atccgattcg aaaactccct cgtctacacc atttgagtac tgggacnaaa gacgagttcg 300  
aagggactac cantttgaga tagaagacac ttgaatcctc caattgatta cagaaaaacg 360  
ggactcatgc tgattcaaag aacgccn 387

<210> 291  
<211> 381  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-H10

<400> 291

gagctaaaaa ctctccttt catttccaaa caaaaacttc tttttattct cacatcttaa 60  
agatctctct catggcgatg tctttctcag gagctgttct cactgggatg gcttcttctt 120  
tccacagcgg agccaagcan agcagcttcg gcgctgtcag agtcggccag aaaactcagt 180  
tcgtcgtcgt ttctcaacgc aagaagtcgt tgatctacgc cgctaaaggt gacggcaaca 240  
tcctcgatga cctcaacgag gccacaaaga aagcttcaga tttcgtgacg gataananaa 300  
nngaggcatt ancaagatgg tgagaaagcg aaangactac gttgttgaaa naaacagtga 360  
aancgcagat agattgggta a 381

<210> 292  
<211> 404  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-H3

<400> 292

gaggttaagac ctaactctta acgaactttt agataaaagc ttataactga gagagacata 60  
gatcgacaaa agtctctata ccttcttgta acgtggtggt taattaatca tggccgatca 120  
aatctccggc gagaagccgg ccggagttaa tagattcgct cttcaatgtg ctatcgctgc 180  
ctccatcgtc tccatcatct ttggttacga tactggtggt atgagtggag cgatggtggt 240  
taatagaaga agatttgaag acaaacgacg ttcaaataga agttctcact ggaattctca 300  
acctttgtgc ccttgctcga tnatgtctcg ccgggaagaa cgtcgggcat aatcgggacg 360  
gggttacaca atcgtcctgg gcctcaatac taatcaatgt tang 404

<210> 293  
<211> 398  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-H4  
<400> 293

gtgaagcatg cgaaaatgga agagtagaga aatcacaagg tatatgaaca tgatgactcc 60  
atcttcccat tttcttctca gtcgtcatct tcatcatcac tctccttca ccttcacctt 120  
cactctctct tttaccgcca atcattacca ccgattcacc tctaagctt ccggcgaaaa 180  
ctgagcttcc tgtcatcgga agctgtatag attgaagatc cagtttcaaa tttctcgaat 240  
catcgttagt ttcccatcga cgttcactct gtaaatacgt gtctgtgaaa caccataacg 300  
tanangagct tctaaaagtc tccggggggg gcgacctctc ggggctaata tctggaaatc 360  
gccaagacgt tgtcgaatct cgaccaagaa tctgtcgc 398

<210> 294  
<211> 378  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-H5  
<400> 294

gaatcgccaa atatatatcc ttttttttcc gatttttcca tagattagaa atcgacanat 60  
ccaaaanaaa aagtaagtgg acctaaccca tcgaatcatg actatatcca ctattctgat 120

attcaaattc gatagagatt aaattgaaac agtanatttt ttttanttca tattttttgta 180  
 ttaggaaatc cgtcgatatc tcttattgaa tcttcttgtn tctatatatt tcataggaaa 240  
 tatattgcgt tctgcctag agaaagagag tatttttgca aagtaataac taaaanggcg 300  
 ttcaatattt ttttttgatc gagaacataa caagttctac attccccttg gtnttangaa 360  
 tcaattggaa taaaaata 378

<210> 295  
 <211> 359  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-027-Q1-B1-H11  
 <400> 295

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 gctgcaaact ctacagggga aggaatagtt cctgaccctt gtattcctaa aggggtatatt 120  
 cttgaaacaa atttacaaaa ggacttacct ggattcttgg ctgataaagg caaatttaca 180  
 gccacccttc aagctgctgg taattttctca gagtgctgat ctgctgcatt tgccatgttg 240  
 caggaagaaa aagggaaatg tacttataag cgttgttcta ttggatcaat attcacacct 300  
 aatcttcaag gaagtttttt ggctacagag aatttcctcc acacatccaa gttctttgg 359

<210> 296  
 <211> 375  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-H2  
 <400> 296

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 ctcgttgtct tggctgaaga ctgcaacgag cctgattatg tcaagcttgt gaaggctctc 120  
 tgtgctgatc acgatctcag gttgctaaca gttccaagt ccaagaccct tggcgaatgg 180  
 gctggtctct gcaagattga ttctgagggg aatgccacng aagggtgttg gatgctcatg 240  
 tcntgttgtc aaggncctcg gcaaggagan aacngcctcc antatcgta aataancata 300



ttgctnccaa taaaatgcc a t gnaacatat ctaaactccn gattcanatg ttttcaacnc 360  
 caatgccggtt ttccc 375

<210> 297  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-H4  
 <400> 297

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 gattcgaatt tctctttttg tgatcagaaa tggatcgagc tccggtgacc acaggaccgt 120  
 tggatatgcc gattatgcac gacagtgatc cgatatgact tcgttaagga tattggttct 180  
 ggtaatttcg gtgttgctcg tcttatgaga gataaactca ctaaagagct tggtgctgtc 240  
 aagtacatcg aagagaggag acaagattga tgaaaatggt caaaagggga gattaattaa 300  
 acaacaaggt cactaaaggg aatccctaaa taattgtcaa gattttaaag aagggtcaatt 360  
 tttggacgcc cgantcaacc tggggatatca taatgggaat aatgccttcc gggcnggtga 420  
 aacttttacg 430

<210> 298  
 <211> 359  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-H9  
 <400> 298

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 tgagggatga gatggaggta acaaccgccg atgtttttcc ggagggttaac gccgccgctg 120  
 tgacggaaaa tcttgatcgg aacgagcttg tgcttgctga cggagtcgtg tcggctgagg 180  
 aaaggaatat tgagccagac aatcgtggag agaggaagat agagagcgag tcgcctccag 240  
 aggatgatgt ttgcccgatc tgtttcggct cctttacggt tccgtgtcgt ggaaattgtg 300  
 gtcattggta ntgcggnaat tgcattctgc agtactggna ctatgctgca atatctagg 359

<210> 299  
 <211> 360  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-H10  
  
 <400> 299

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 tcttcctctc ccgctgtcgc caagattgaa tcttttttca gttgtggctt caccggataa 120  
 taaggaattc agtaagagat aagttcatcc tgacaacatg gagaccaaga atgagaattc 180  
 tgatgtttca cgggcagagg agtttaaaag tcaggccaac gaagctttta aaggtcacaa 240  
 atactccagt gctattgatc tatatacaaa agctattgaa ctcaacagca acaacgctgt 300  
 gtattgggca aatcgtgcat ttgctcacac aaaactggga ggaatatggc antgcaatac 360

<210> 300  
 <211> 446  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-028-Q1-B1-A10  
  
 <400> 300

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 tcggaattcg gctcgagtgg ctgaggaaat caagaatgtt cctgaacagg aggtgccaan 120  
 ggtagcaaca gangaatcat cggcagaggt tacagatcgt ggattgttcn atttcttggg 180  
 aaagangaan gacganacaa aaccagagga gactccgatc gcttcagagt tttcgccaca 240  
 aggttcatat ttcagagccg gagccagagg ttaaacacga aagtcttctt gaaaagcttc 300  
 accgaancga cagttcttct agctcctcat tgaggaagaa gggttcagatg gtgagangag 360  
 gatgaagaag aangagaat aanaagccaa ctactggaat tttgaggnaa anggaggaag 420  
 anangnaaaa gggtttatgg naaagt 446

<210> 301  
 <211> 402  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-028-Q1-B1-A4

<400> 301

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ccactgtttc ggtggttata gctcaagtcc ctccggagaa acaattcaga gtcgtcaacg 120  
aaggagaatt cggtgaatac atcactgagt acgacgcaag ttacagattc atcgaatcat 180  
caaaccagag cttcttcaca tcaccattcc agctcttggt ttacaacact acccctagcg 240  
cctacatctt agctctccga gtcggactca agcgtgacga gtctaccatg cgttggtatg 300  
gggacgcgaa tcgcaacaan cccgtcggag aaaacgctac actctcactc nggcgtaacg 360  
ggaacctcgt cctcgctgaa gctggacgga cgagtcaaat gg 402

<210> 302

<211> 406

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-028-Q1-B1-A6

<400> 302

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ntaatatcgg attcgatgag tcaaaccoga tccgaatggt ctccgatggt ctccgggagg 180  
tagaagaatc tgtttccag atcttaggtc aatctcgtca cgttctctct ttcgctngct 240  
tcactcaccg atatggtaaa aagtatcann acgtggagga gatgaagctt cgattctcga 300  
ttttcaangg agaantcttg atttggttca gattcannca anaataaaag ggttatntta 360  
caancttcgg tggttaaacca atttgctgaa ttgacattg gcaaga 406

<210> 303

<211> 385

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-028-Q1-B1-A7

<400> 303

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gattttgggt tagctcgggtg gttagaacac aagattgatg aaacagagca tgattcgagt 120  
tacgactctg tttcttcctt ccgtaaccac cagttccgag tcgcggattc gactcggatc 180  
gggtgggacta tcgggtactt accaccggag agtttccgga aaaaaaccgt tgccaccgct 240  
aaaacagatg ttttcagctt tgggtgttggtg gttttagagg ttgtctccgg tagacgagcc 300  
gttgatcttt cgttctcgga agataaaatc attttacttg attgggttcg gagattatcc 360  
gataaccgga aattactcga cgccg 385

<210> 304

<211> 394

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-028-Q1-B1-A8

<400> 304

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aagagctacg agtggcgaat ttctcagctt caaaacattg cnangatgat tgatgagaag 120  
gagaaatgca tcaccgaagn tttgtntcaa gatctttcta agcctgagct tgaagctttt 180  
ctanctgaga tttcgaatac annatcatcc tgtatgcttg caatcaaaga gttaaagaac 240  
tggatggctc cagaaacggt caaaacttct gtgacaacat ttcnctcgtc tgcacaanta 300  
gtctcagaac cgcttggagt tggtttgggt aattcagcct ggaaattccc tttccgaatg 360  
tcngtcnagn caatcattgg ggctantgca ctgg 394

<210> 305

<211> 366

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-028-Q1-B1-A9

<400> 305

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tccgtgagct ctctgtgctt tgactgcaac catgtcgach attatgcaga agatcaaaga 120  
aattgaagat gagatggcta anacacagaa naataaagct acttctcatc atctggggtt 180  
gttaaaggcc aagcttgcta ancttcggag ggaccttctt gcaccgccta ccaanngtgg 240  
cggtggtggt gctgganaan gttttgatgt gactaaaagt gggngattct agagttggac 300  
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tccgng 366

<210> 306  
<211> 359  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-B11

<400> 306

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caaagatgct aagttacctg acattgaggt tgtgcgtggt gtttgggatg gtttaatgga 180  
tgctgttcan tggctctgaa aaaaccagca gcaaaatgca aattctgttc tgcgccaggt 240  
gaaaacatgg gtcctacttc tgaacacgtt ctgtaccagc ggaaagctaa atctggaact 300  
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<210> 307  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-028-Q1-B1-B12

<400> 307

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catcgggttc gaagaagatt gtcccaagtg gatgcagggc tatgattgga caagttgctg 120  
gaggtggaag aactganaag ccgatgctca aggcaggaaa cgcgtaccac aagtaccgtg 180  
tgaagaggaa ctcatggcct aaggttcgtg gtgtggctat gaatccagtg gagcatcctc 240

atggaggagg taaccatcag cacattggtc acgccagtac tgtaagcgt gatgcacctc 300  
 ctggacagaa ggttggtcnt attgctgcan ggangactgg tcgtctcana ggtcaagctg 360  
 ctgcttcagc tgccanggca gactagagtt anaagagata aactttgttt ctcttgtttc 420  
 c 421

<210> 308  
 <211> 381  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-028-Q1-B1-B3  
 <400> 308

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 agactatcac tctcgagggt gagagctctg acaccatcga caatgttaan gcaaagattc 120  
 aggacaagga angcattcct ccggatcagc aaagattaat attcgccggt aacagctag 180  
 aanatggccg taccttgccc gattacanca ttcagaaaga atcaaccctt catttggttc 240  
 tccgtttaag aggtggtatg caaatctttg tcaagactct gactgggaan gaccattact 300  
 ttgganggtt gagagctncn ganactattg acaacgtcaa agnaaagatt caaggacaag 360  
 ggaanggaat ccctccggat t 381

<210> 309  
 <211> 392  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-028-Q1-B1-B4  
 <400> 309

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 tcgaaattct tgagtagaga tgggagcaag ggctcgtcga ccgcttcctt ctcttatatg 180  
 cctcgaacag aangcgagat cttgcaaaat gctaactca anaactttag tctcagtga 240  
 ctganatctg caactaggaa tttccggcct gatagtgtgg ntgggtgaacg tggatttgg 300

gcgttttcaa aagntggatc gatgancct cncncgctc ctttctaaaa ccgggggaac 360  
 cggaattgt cantgctgtg aaaaagactt aa 392

<210> 310  
 <211> 384  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-028-Q1-B1-B8  
 <400> 310

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 acaagtatct aacagcagac gacgatgaag aaaccgtaac tcaaaaccgt aacggatcta 180  
 ccaaaaacgc tcgatggncg gtcgaaccgg ttcgtgattc tttccatggt attcgtcnta 240  
 aaagctgtta cggttaagtan ttaaccgctt ctaacgagcg gtctgtctcg gggctacggg 300  
 gaanaaagtg nntcagttga aactgagtcg gggttgattcg tccgttgagt gggaaccgcn 360  
 tanaaaaagg gtctaagatt aagc 384

<210> 311  
 <211> 379  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-028-Q1-B1-C5  
 <400> 311

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 tgcgtttctt agatcgagcg agcgaagcga gagatcatgg aagggtggagc tgctctctac 120  
 aatcctcgaa ctgtcgaaga agttttcaag gatttcaaag gtcgtcgtac tgccattgtc 180  
 aaagctctca ccaccgatgt tcaanagttt taccaacaat gtgaccctga gaaggagaat 240  
 ctttgcttgt atgggttacc gaatgaagaa tgggaagtga atttaccagc tgaagangtg 300  
 cctctgagtg tancanagcc agctcttggt attaactttg ctaagggatg ggctctctga 360  
 aaaggaatgg ctttcgcnt 379

<210> 312  
 <211> 294  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-E3  
  
 <400> 312  
  
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 tcaggggggt catcntggaa tgactgctg tccacttggt taaaaagcaa cccaacatgt 120  
 caaaattccg tcnaggtcac ctgagatgct cacagcanaa cagagtcctg atctatgtgt 180  
 ttggtgatca caaaaanaga ggggttccca gacactanaa catgcaatgc ggttccgaag 240  
 gtttgtgcga tttctgtaag gnagtcaacg ctgctcaatn naaatcccaa aaaa 294

<210> 313  
 <211> 390  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-E5  
  
 <400> 313  
  
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 atactcttac atatgaagac aatgaaggag acaagatgct tgtaggagat gttccatggc 120  
 agtaagaann nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnaaagga gaagtattag attcctagtc acatatttat natatcttaa tcacagtttg 240  
 attaataaca aacttagttt ggttaagcta ttaagggatt gtgggacttt ttgatcacta 300  
 aaattgatta tttcttaa atgtcagaatg gttggtgggc ttcggtgaag aggctgcntg 360  
 tgattaaaac ttctgagatt tctcagcatt 390

<210> 314  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-E6



<400> 314

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ggttgcagtt cttgaatact gatgggatca gaaccatagg atgtgttctg ggccagagta 120  
ttgctctgga ttactatggc cggcagggtg atggatatgt agcagaattt actgagataa 180  
accgtcagtt ggagataaca ggaacgttta caatgaaaag gaaaaagctg ttccagttgg 240  
ttggaaaggc taatgtgatt ctggctgatg tgattctgaa gcttggctct tttgagaagt 300  
cagatatagc ttggaaggat ccaaatatgg gtcagtatgg gaanttccga aaagatgaat 360  
ttgaactgac acagagtttt gcaaaccttg attataagct ca 402

<210> 315

<211> 404

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-027-Q1-B1-E7

<400> 315

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ccgacgtggt tgcgtctcct tacaccttcc tccgtcgcta tcaccatcca tgcgaagcca 120  
ggttccaaag ccgcctccat caccgatgtg agcgacgaag cggtaggcgt tcaaatcgac 180  
gcgcgggcta gagatggtga agctaacgca gctcttctcg agtacatgag ctctgtattg 240  
ggggtgaaaa gaagacaagt ctctctcggt tcgggatcga agtctcgaga taaagttgtg 300  
attgttgagg atatgacca acagagtgtt tttcaagctt tgtccaagc atcaaacct 360  
aactaaagtt tccaaacctg taactaacta tatgngaaa ctaa 404

<210> 316

<211> 400

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-027-Q1-B1-E8

<400> 316

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tattagnnggc cgtcgtatat gggatgctgg ccgagtcttt tactgcatta ctaagggagt 120  
acaatacccg tctgtacctt gacaaaacaa gccaaaggcg gtcgacttgt actattcaag 180  
ctgggtgtatc cgtgcagttg aatcaaaaag aggcgatggg gagatgacat catgtgaggt 240  
actactatctt caccatgaag atatgggaat accgtgggag attgcaaagc ttgggggtgag 300  
acanggtatg tgggggtgcag tcaagaagat tganccaggc ctaagtncat atcaaaaggc 360  
ttaagcaacc ggaacaaggt tatccccgan ttgcataatg 400

<210> 317  
<211> 308  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-027-Q1-B1-E2  
<400> 317

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aatctaagag caaatgcagc agcccgaaat tctagattcc cacacatggt aattttgttg 120  
cctcagaaac cagccgatcc ttagtttcct atggatgaaa cctagttttg tatagtgtgt 180  
gactctatct ctctgtaatg tgatcgctag tgatttcttg caaataactt ttgtgtaaac 240  
cagtaaagat atttttatgt gaaataataa tcaataggaa aatttcttaa aacaaaaaaa 300  
aaaaaang 308

<210> 318  
<211> 334  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-027-Q1-B1-E9  
<400> 318

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tacggaactt tcttacatgg atggtgtggt agatagtggg gttcttgaga ttgaaggtgg 120  
tgattattat tctcatatta actatgcact cacatttgag gaaccaactc tttctctatg 180  
gcaagagaat aatgatgtag ttatgtattg attgatttcg tgaagtcata atataacaaa 240

ggctgtttcg taatccgtta acccccaaaa aaagaaggaa taagaggctg tttcattaat 300  
 ctttaacaaa ttaaaaaaaaa aaaaaaaang gcgg 334

<210> 319  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-F1  
 <400> 319

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 caaaagtcgc cggatcatgaa agtagaactt gtgttcatac catcgccggg gcgttggnca 120  
 tatccgagca acaacggcgt tagcaaagct tctcgttgcc agcgacaacc gcctctccgt 180  
 cactctcatc ngtcattcct tcacgaagtc tccgacgacg cttcttcttc cgtctacacg 240  
 aactccgaag acngtctccg ctacatcttc ctccccgccc ganatnaaac tacngatcnc 300  
 gtaancttan atcgacaagc caggaaacca ccagtttagag ccgtcntgtc caaggncccc 360  
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<210> 320  
 <211> 350  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-F4  
 <400> 320

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 accaaagcag aggagttcgg cgttttgtct gccgccacaa acccggaac gcctggaacg 180  
 ttattcactt tgagcctcgg tttactcctt cttggaccgg tttttgcata tgtggttcct 240  
 gaagattaca cttgggaagt agtgattcag gttcttgtgg ctctactctc tgttcttggg 300  
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<210> 321  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-F6

<400> 321

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 accaatgctt gagtcggaga agtcttggtt atgttttagt tgcttcgccg tgtttgttgt 180  
 taccagcggt gtctcanct gngaaagnan taatccaaga gtccttanga tgagagacgg 240  
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 nnaactttgt ttagaaaatg tgcnggggtt tgggggttagg ggtatantct ngggaaattt 360  
 aactcagggg gntgnnttgg ggccacaata ttacgggnat ttcanatgtt gggcaggggt 420  
 gatttcccc 429

<210> 322  
 <211> 372  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-F7

<400> 322

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 agccttttcc ttggagagtt catgcaacct gactgggata tgttccatag tctacacca 180  
 antgcagagt accatgctgc aacgcgtgca atgggtggat ggcantcta tgtcagtgat 240  
 aagccangca acacaanttt gatctattga gggagctggg tctctctgat gggtcanttc 300  
 ntcnggctn agctcccggg taaggctaac ccgtgactgg cttaatcccc gattcaacca 360  
 nagatgggat ca 372

<210> 323  
 <211> 380

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-F9  
  
 <400> 323  
  
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 aaagatggag aagaatgggc acacggaaag tgaacttcaa actcaaattgg ttggaaatga 120  
 gagactacct caagtaacgt ggcaacggaa gttgaacagc aaagtgaaga acccttctga 180  
 gttcaagatg agtataagag atgttcttca tctgtttcct ctaggctata gattgtggcg 240  
 ttacactaaa gaagaggcaa aaaaaggaag attttcgatg tacgatattct tcaaaaagcg 300  
 ccatgtaaga ngcgaccatg gtgtcccat aggtggaatt ggtggaggaa gcacngaag 360  
 gagtttataa aggtgaattc 380

<210> 324  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-G1  
  
 <400> 324  
  
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 ggctgagctg atccatggcc gatgggcgat ggcagcgggt cttgggatct tcgtcggcca 120  
 ggctggagc ggtgtggcat ggtttgaagc tggagcccag ccagacgcga tcgtccctt 180  
 ctggttcggg tcgtttcttg gaaccaatt gcttctcatg ggttgggtgg agagcaaacg 240  
 atgggtcgat ttcttcaacc cggattctca atcggttgag tgggcaacgc catggtcgaa 300  
 gaccgccgag aatttcgga actataccgg cgatnaagga taaccgggtg ggaaaatcct 360  
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<210> 325  
 <211> 381  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations

<223> Clone ID: ARABL1-027-Q1-B1-G12

<400> 325

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aaccgggatt aattacagag atattgtagc tgagaatggt tctatggctg gaaggttaga 180  
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tgatcctaag ccttgtgatt tgcttgatgg acaaagaatc agagacgacg aaagaagaag 360  
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<210> 326

<211> 400

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-027-Q1-B1-G6

<400> 326

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tcagagatct caaccgaagc ttttaaccaa caaggagaaa atgaccaatg ggcggttcgt 180  
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tcaagtgttg tggctcgcaa tctcggtatg ttgtccaaag caagacaaaag agatcatggt 300  
taagctccgg tgctgcaaag gagccaacat taaggacaaa ttaaggaaca agggacacac 360  
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<210> 327

<211> 469

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-027-Q1-B1-G8

<400> 327

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 aagaacttga gttccatggt cttcaaggta aagtgtcaat tagcccatgt tctcacatag 180  
 gtggtcacaa atacgctggg aatgttatca tctaccgatc aaacatcaac aggggaagtca 240  
 caggacactg gtatgggtat gtgaccccag aagatgtacc tattcttttg gagcagcaca 300  
 tcaacaaagg cgagattgta gaccggctat ggaggggtga aatgggtcca tcagaaagaa 360  
 gttcaganna aactcaagaa gggcaattta acctaatngn aaaatccaat ccgttaaagt 420  
 naatnggaaa atgatcaaga atcatcggtc anaacgccga tggtcccg 469

<210> 328  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-H1  
 <400> 328

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 aggagatgag attcgtaggt atatctctga atcatccaaa tctcgttcat cgaaacatcc 240  
 aacggctacg attgttttca aaggtagccg acttgggatt cgacctgcac cggttgttgc 300  
 atctttctcc tgctcgtggt cctaatecaa nagacgccgg gagantccta aancgggatg 360  
 taatcganc tgggtttgaa taatccnaac tggcttgggc cttgaaccgg attgggtcca 420  
 at 422

<210> 329  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-024-Q1-B1-B11  
 <400> 329

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agaagacgac ttcgacgaat aaacccatca aagttcgta catctcaaac cccatgagag 180  
ttcaaacttg tgcttctaag ttcagagagc tcgttcaaga actcacaggc caagacgccg 240  
tcgatcttca accggagccc atctattccc ctctctccga cgaccacaac ctttctccac 300  
cggcggagaa tcttgcgcca cgtgttcttc atcaggagcc gttcggtgag agagacagtg 360  
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<210> 330  
<211> 429  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-024-Q1-B1-B2  
<400> 330

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ttaaccattt cttgagtttt cttttgatcc cgatcatggc nattgtcgcc gttgagcttc 180  
ttcggatggg tcctgaagag atccttaatg tttggaattc actccagttt gacctagtcc 240  
angttctatg ttcttcttc nttgtcatct tcactcnac tgtttacntc atgtccaagc 300  
cacgcaccat ctaactccgt tgactattct tgttaciaag ccaactgtca cgtgtcgtgt 360  
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tttagntcc 429

<210> 331  
<211> 468  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-024-Q1-B1-B3  
<400> 331

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gaattcctcg gggaattcca attccacatt ttcaagaaat aaggaggcaa aaatgttcat 180  
atatgaattg gaattatttg ttttcttatt angcctatcc tgaagccaaa ggaaatgaga 240  
tcggaattcc tcggggaatt ccaattccac attttcanga aataaggagg gcnaaaatgt 300  
tcaaatatga attggaatta nttgtttccc antaaggcta nccctgaaan ccanaaggaa 360  
atganaatcg ggaatttccc cggggggtacc gagctccgaa ttccctaana gtggagtcct 420  
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aacccttggt gaaattcgag ctcttttgggt gtttctcttt ttttttgttg gtatcaattt 240  
ggtgtttctc ttggtcttgt tgaggtaactg aatcagcttc ttcttcttct ccatctttaa 300  
tcgattccaa gtttccttca caagcttggg acgaattgac atccaantnc tccaattcaa 360  
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cttcaaatga caatggtgat tattggntat ttgggaacaa gacgcaagag gtgcttaagc 240  
ccaaagcagc agtcaaagtt gattgatgac acgatgatga naccgggaga ttcatecttg 300  
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tttgacngg 429

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<400> 334

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attgcagcgg ttctcgcaat ccttgtcaag aattctcaaa ccggttctgg catcttcgca 180  
cgcctgaaa tctccggttc gcgtgatgtt ttcccgctcg cgaaagtggc taacttaacc 240  
ggagcctctg gtctgagag tatagctttc gatccagcag gtgaagggtc gtacgttggt 300  
gtctcagatg gtcgtatctt gaaatggcgc ggtgaaccgc ttggatgggc agatttcgct 360  
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<211> 476  
<212> DNA  
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ccattcaggt ttaccaatta ctagcgctcc aagtgtctcg tttctttcaa ccaggctggt 180  
acattactga tcatgtatgc gccagacgca gatctgagga aaaagacatt tgaggcactg 240  
aagaggggttc tttctgatat cccagctcct cataggtttg acgttttaag agcccttgtc 300  
acaaattccc ggtctccttc aatgacaagc aatccttctg ggtctagtta aagacagcat 360  
gagcaaaagc aatttgcaag atacagattg tgccgctggt gatacgcatg ttaatgaact 420  
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<210> 336  
<211> 415  
<212> DNA  
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atcaaggaat gtgatcacia tatggtgccg caacagagga agtatgtacg tgtaagttat 180  
ttcagatctg gttggcgaat taggaaagtt cctggtagga acgcttgta gatacacatg 240  
gttcaccagg aggatgctgg attaaatggt gaagatggca aagcttgctt tctcaagagg 300  
catatggagt tacgtttgta agatggaaaa tgcactcgca aagtacattg caaccaagtc 360  
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<210> 337  
<211> 418  
<212> DNA  
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nnnnnnnnnn nnntcgctat cgtcctccct tttatcttcg tcaggttcgc gtttctcgtc 180  
 ctccaatctg cctccgtttg cgattcacca ctcgattgca tgggactcag acttttccgt 240  
 gggggcgaca catctctgaa aattggggaa gagttgacac gggctctaag tggaagagac 300  
 gacagatnat caggacgtta atgggaagag gaacnaangg atnattggag tcattcgacg 360  
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 <211> 404  
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 gcttaaaggt ctaggtcttg aatacacagt cattagcgtg ggcaagaagg gaaattctta 180  
 tttctccgt cgcccgta tcccgcgtga caaataccta gaagccggaa ctttacctac 240  
 ggctaaagaa gctcaagctg tggctggatg atgtcttctc tctggtttat aagtgaagaa 300  
 atcgacaaag tcgagctcct tgtacacaaa gtttgtctc cttgggtcaa atcagaancc 360  
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<210> 339  
 <211> 463  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 ggcagcagct gaagcaagag cagtgtggca aagaacagtt aatcgttgct ttgtccaaga 180  
 agacgctaaa agagctccca agttaactta ttgccaatca tcttcatect caactgcttc 240

ttcaactaag caagtggaag tttctggttc ttctcctcga gtttctgttg aaccacggga 300  
 ctcaatcatc cttggngcag gtttcaaggc ctcttctcgc cgaaaacccg aaatttcctt 360  
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 aanggggaat aaanaancaa cccanttgga gggatgaggg tta 463

<210> 340  
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 cttccggaat cnantnggga aaatgggagc ctttttggtc aaaacctgaa tccggccaac 180  
 aaggagacac ccgacaaggc ttggtgatta agattctccg acgctatcct cgatgccttg 240  
 ccttgaacaa gaacctgag aagcaaaagt ttgcntgtga agacttgtag caaagactaa 300  
 catggtcatg ggttttggag aaatcaccac caaggctaac gttgattacg agcagattgt 360  
 tcgtaaaaca tgccgtgaga ntggattcct ctctgctgac gttgggcaa atgctgacaa 420  
 ntgcaaaggt cctgggttaa caattgagca acaaagtcct gacantgcac aaaggggttc 480  
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<210> 341  
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 <212> DNA  
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 tgaatctgac aaattcttgt cttacttcaa gccttgcat ataccactag aggggtggtg 180

tgcgtctgga tttaaaaaac cggaggagga ggagtttgaa acccggtgtg atacctgcaa 240  
 agggaaacgt gctgtccact tgaagcaggt tccttttgca cgctcatctc tgaatcatga 300  
 tgatgtgttt atccttgga caccaaggaa aagatttatc agtttaatgg tgcaaattca 360  
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 gaaggaa 427

<210> 342  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 342

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 atttccaaga atggcgcaag atcacgacga gacggagaat aaaacctttg ccgacgttgt 180  
 cgggtggcgat gatgtcggcg aaattgtcaa cggaggaaca aagaatggct atcgtaaacc 240  
 ggactctgtg gagaaggaag atgatgagga tttgaagagt ctctattcct tgatttgtct 300  
 cacgatcggg tcgattctgt ttccagattc gaaaaccggg gatgcgtctt cgtttcttga 360  
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 aagacccaaa atccttcccn g 441

<210> 343  
 <211> 398  
 <212> DNA  
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<223> unsure at all n locations  
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<400> 343

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 ccggaatatg ctcttagctg ccacgacga gaaaaacagt ggaacttatg attttcttta 180

tttgcctatt gatttcaaga ataaatgtaa tgtgggggtat gcatttatca atatggtgtc 240  
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ctcantttca annaccaagt ttgatgaatt aagatang 398

<210> 344  
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gaagatgcgg atagagttag cctcaaattc gacagaatca agtactgggtt atctgttggg 180  
gctcaaccaa cagacacagt ggaaagcatg cttttcaggg ccggtttgat accaccaaag 240  
cctatgggta ntggtcggtt cgaaaaaatg gggcagaaat ctacgagcca acatgggttta 300  
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<210> 345  
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<212> DNA  
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cgcgaaaacc cgagttcaag aagattctca gcttcataca ttggaagctt ccgagaagat 180  
caccacaagt cttcttttag aacaacaaac ttcaacaaca tctctagtag tgctctttct 240  
cctggctaca ctctcaanga agagattgac ccatcaacat attccttcac caatgcactc 300

aaagcattac aagcaaagac aatgtacaat aacaggggaat gggtagcac aagaaagggt 360  
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 gaagttacca aa 432

<210> 346  
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 tggctatact ttcaccgggt caaaagattt tcaataggtc tctttgaccc ctcatatttt 180  
 tacttttttt acnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnnnnnnnn nnntcccaag aaaaaaatca gctgggttttt tataaaagggt 300  
 ggcctacgaa gtcattgtcca aattatgaaa taacaaaatc acaagaaaaa cgtccttggt 360  
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 gga 423

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 cctctttctt gaaacgggaa agaggagggg aagaacaata agaagatgaa gaagattcta 240  
 naaagatcaa tgggaagggt tcagggacat ggcaagggtc tgggtgcccg tgggaatngc 300



aaaatgggtt cggtcctcct cctaaccgna aatttaaccc ataaatttag atttcccctt 360  
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 gtgaagagct tgaatctctg tagtatcaac gagagtaaag attcgatttc aatggagatc 180  
 aataaatcat tcaactgacat ggaaggtgtt cagctttcca gcaaagtcgg ttgcgagaat 240  
 ccaagaatct tggatactct gagctttata tccggaacta atgggttcaac caanaactga 300  
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 cagaatcaag agccttgtaa cagaggagct gaaacaatac ttcagacccg agttcctaaa 180  
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 gaccgaaaga ttcaaagaga gagtagtaga cgaaggttat aaccgagct atggagcaag 360  
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437

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aactgaaaca agaggggaag acccggttca ttggtatcac tggctctccg ttagatattt 300  
tcacttatgt tcttgatcga gtgcctccag ggactgtcga tgtgatattg tcatactgtc 360  
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ggcaagattt ctgttactac tacgttaaaa gtgttttcgg tggccagctt gttctaaggc 180  
ttccatctgg ggttgtgtaa gttataaagg aaaaaagata agacacatta tgacgaaatt 240  
tgttacacga agatagatct cagcttggtg taatcngata gcctctgggt acccnaaatt 300  
tacnccnaa ggcaaattcc aaatncaata accgngtggt aaaattttgg ggnggtnnac 360  
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<210> 352  
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gtaaatcact gtggaggcaa tttaagaacg agacagaata taccgttaca caggccattt  240
ctgcacagga anctaaccga cggaataaca actgggctgc aactccaatg ggcaatccct  300
ggccttgnt ggtccttga ttaaattnaa ttaagaaccc ccttaagaaa atcccaaag  360
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 accatatgta ttccatgccc ccttatccat atctagctac tgactatgct acacaactgt 240  
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 cagaagaagc aatggagaga ggaattaaag aggatgaaag aaatgaagaa aaacgggaag 240  
 aagctgggtg aaagtgagtt tggttatccg ggaagaagaa gatgattcaa gaaaacgggg 300  
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<210> 356

<211> 417  
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 aagctcggct gtgtttctga agaggaagtc atttcatggc tcatgacttg ccagcatgaa 180  
 tctggtggct ttgccggtaa cactggacac gatccacata tcctatatac actcagtgtc 240  
 gtacaaatct tggccctatt tgacaaaatc aacattcttg acattgggaa agtgtcaagt 300  
 tatgttgcta agttgcagaa tgaagatgga tccttctcag gagatatgtg gggagaaata 360  
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<210> 357  
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 ttcgattctt ttttctcaat ctgggtttca gtcttcggat tcaatggcgt ctggatcttc 180  
 gggtcgggtc aactcaggat ccaaaggttt cgattttggc tccgatgata tcctttgctc 240  
 atatgatgac tacaccaaac aaagaactcc ctctaaatgg gcctcaatcc cgattctggc 300  
 gattgcctgg cttncaaatc caacaaaggg aattccaata aaacaaggat gggaaagggc 360  
 ctcgggtttc cctaaaaagc tcctaaaatc caacaagagg gaatccttga gccaaagacat 420  
 taatgacant ggc 433

<210> 358  
 <211> 392  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-023-Q1-B1-B6

<400> 358

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 tcctttcgct gaacagattg tnaagaacag tgttaacaat gctcttcaag cngatccac 180  
 tttagccgct ggncttatcc gtatgttggt ccacgactgt ttcacgatg gatgtgatgc 240  
 gtcaattctg ctagattcaa cgagagacaa cactgcgga aaggattcgc ctgcgaatct 300  
 gaatctacgt ggntacgaga tnatcgatga tgcaaangag aaaatcgaaa atanatgtcc 360  
 aagagttgta acatgcgcaa atttanttgc ca 392

<210> 359  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-023-Q1-B1-C12

<400> 359

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 ccgtagcaat ttcattcaga actcaaaagt acgtaaatac ctctctcgtt catcgcttat 180  
 ctcttatagg atatcgtaat tatcctctac cgtgggcagt gacgtcaatt gacgaaatcc 240  
 ctctaatagc tgttcgccg aaaatagacc ggaattggag aggtgggttc agtctcggcg 300  
 tagatttagg tttatctcga accgggaatc gctattagta aaaggctaac accgttaaaa 360  
 cctctcacgg tttgaaatcc ganaaggga aaaactccga agaaccaagg cttttaanaa 420  
 aattgctg 428

<210> 360  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-023-Q1-B1-C2

<400> 360

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aaactgccat ttcattaccg gaatcaacta caacgggtctc agcgtgaagc aactacaaga 180  
gctccgtgga atcctccgtg aaaacacaaa cacgaagctc ctcgctcgcca agaactctt 240  
agtctacaaa gcctttggaa nggaaccaa tggaatccc ctgaaaccaa tgttatnaan 300  
gggaataaac gccttgggta antccttnaa tcctgaaaga tanacctgct ggcttgaaan 360  
actttcaaca attttcaaga aagagaagaa gctccaagat aacaatttaa gnggtg 416

<210> 361

<211> 432

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-023-Q1-B1-B12

<400> 361

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ctccaagtga cggtttcttc aagctgcctg cgtcgtctat tccggcggac agccgaaaat 180  
tagtagcgaa ttctacttcc tttcatccaa atctcagccg ttaacgtctc tgctcaagct 240  
tccctcaccg ctgattttcn cgccttttca gaaactatac tgaaagaggg gaagaaataa 300  
cggaaaagag aaaacaagan aaacaatcgt gttggcacia gagttcgata tgcagatgcg 360  
acagacanca aacttcttca acaaaagggg tgtgtcgnnt ggattactgg tccaattgg 420  
tcaaggaaaa gc 432

<210> 362

<211> 438

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-023-Q1-B1-C5

<400> 362

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ctgtcccaat atataatcgg gttttatgtc cagcatctcc gacttccgga gttgtgatgg 120

ctggccctct gtttggcatc atcnggcttc tanaaggagc gttggccagc ttcgtcgttt 180

tttctagtcg tccggtgtat gaggttcgta tcacgtttaa tattcgctgt ttggttatta 240

taaatccagt agatccggtt angtctctac ttttgttcaa nttatttcna ggattaatag 300

ttctgctccg ggtgggcctc caacaaggnn tatgtgntga taagccttgn tggatcnaga 360

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aaagcccaag taacaatt 438

<210> 363

<211> 431

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-023-Q1-B1-C7

<400> 363

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actagcttca aagcttccgc tcaagatcct tttacttaa atcattattg tccaaatacg 120

acaacttact caagattcag cacttactcc accaatctca gaaccctttt gtcctctttt 180

gcttcccgca acgcctctta ctccaccgga ttccagaacg tcacggtggg acaaaccccc 240

gacctggtca ccggactttt cctctgccgc ggagacctct cgccggaagt ttgcagtaac 300

tgcgttgctt tctccgttga cgaagcgta actaggtgtc caagtcagag agaagctgtg 360

ttctattacg aaggagtgtg tactcagata ctctgacaa gaatattcta atcgacgggc 420

aattacaaac g 431

<210> 364

<211> 423

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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<400> 364



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 tgaggtgcaa tataactact gtgtgtatga ctccggacaga gctacagggg atggagttgg 180  
 agcctttttg ttctcagtgg ctaagtcaaa tccttatcat gctcgttagc cggtgcttct 240  
 gttgtggaaa gcctctcaag cctggcggtt caccgctct tgccctcatt ctcttcattg 300  
 ttagctggat gttcttcttg atancgnga tatgtctatt agcctggatc gtagaaatgc 360  
 ataccacaca aagtacagga caatgttcan ggncaatcct cctgattgtc aaactctacg 420  
 taa 423

<210> 365  
 <211> 370  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-023-Q1-B1-D11  
 <400> 365

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 ccgtcataac cgcagtcact gtcagaaca ctccaggagt tcaatctgtt catcttcttc 180  
 ctccggaatt tatctctgaa cagctcaa at ccgtcctctc tgacttcgaa ttcgacgtcg 240  
 tgaagactgg gatgcttcct tctactgaga tcgttgaggt tcttcttcaa aatctatcag 300  
 attttccant tcgtgctttg gttgttgatc ctgtgatgg atctactagt gggtcacgttt 360  
 tgggctgggt 370

<210> 366  
 <211> 391  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-023-Q1-B1-D12  
 <400> 366

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tctgaatcaa gtaaagtagc ttatgtcaca cttttgtatg gagatgagtt cttattagga 120  
 gttagggtat tgggtaaatac gattcgtgac actggatcca ctaaggatat ggtcgccttg 180  
 gtttctgatg gtgtctcaga ctactctaag aagttactca aggctgatgg atggaaagta 240  
 gagaagatta gtttactggc aaatccaaat caagttcatc cgactangtt ctgggggtgt 300  
 ttatacaaag cttaaagatc tttaacatga ctgattataa gaaagttgtg taccttgagg 360  
 ctgatacaat tgggtggtaaa gacaattgan g 391

<210> 367  
 <211> 495  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-023-Q1-B1-D5  
 <400> 367

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 tccggtcaag aaggagaaga cgagtcctgt ttcggcggcg gtgacggcg cgaagggaaa 180  
 gcattataga ggagtgcagc aaaggccgtg ggggaaatct gcggcggaga ttagagaccc 240  
 ggccaagaac ggagctaggg tttggttagg aacgtttgag acggcggagg acgcggcgtt 300  
 ggcttacgac agagctgctt tcaggatgcg tgggtccgcg gctttgttga attttccgtt 360  
 gagagttaat tcaggagaac ccgacccggt tcgaatcaag tccaagagat cttctttttc 420  
 ttcttctaac gagaacggan ctccgaanaa naggagaacg gtggccgccc gtggtgggaa 480  
 tggataaggg attga 495

<210> 368  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-023-Q1-B1-D7  
 <400> 368

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agaatggaat atcatttatg acaaactaga caaatgtgtt gagagtggag caaaagttgt 120  
tctttctcga ttggctattg gtgatctagc tactcagtat tttgccgatc gtgatatttt 180  
ctgtgctggt cgtgttgctg aggaagatct taaccgtgtg gctgctgcag ctggaggaac 240  
agttcagaca agtgттаааа gcataataga tgaggttctt ggaacttggt agatttttga 300  
ggaaaaacaa gttggtgggg agagatttaa tatattcagt ggttgccctt caggacgaac 360  
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catg 424

<210> 369  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-023-Q1-B1-D8  
<400> 369

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aantccttgg aagcngccgt gtgacaatga ggaagactgt tgcnancca aagggncnat 180  
caggcanncc atggtacgga tctgaccgtg tcangtactt gggtcgattc tctggngaatt 240  
caccgageta tcttaccgga gaagttcccc gganaactat gggatggtaa aaccggaggg 300  
acttcaanct aaccncaaga cattccgcaa tggaaccgtn gaactaaaaa tttaccaaca 360  
agcaaggttg ggncaatgct ccgngcccc taaggttgog tcttctctgg acctttgggc 420  
n 421

<210> 370  
<211> 443  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-023-Q1-B1-E1  
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gggaacacag ggcttaaggt tagcgccgtt ggTTTTGGTG cctctccgct cggaagtgtc 120  
 ttCGGTccag tcgccgaaga tgatgccgtc gccaccgtgc gcgaggcttt cCGTctcggT 180  
 atcaacttct tcgacacctc cccgtattat ggaggaacac tgtctgagaa aatgcttggt 240  
 aagggactaa aggcttttgca agtcctaga agtgactaca ttgtgggtac taagtgtggt 300  
 agatataaag aaaggTTTTg attcagtgtc gaagaaaagt aagaaanaag tattgaccaa 360  
 naacctggga gaaaggcttc aaccttgaat taaggTTTga caataacttc aaattgncaa 420  
 tgacaattga attccgggtc cnc 443

<210> 371  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-023-Q1-B1-E12  
 <400> 371

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 cctcctcgca cttcccaatc caaaaccgct ctgcgagagt ttctttccgt ctctctgcta 180  
 agcccaagct tcgctttctc tccaagccta gtcgcagtag ctaccctgtg gtgaaagcac 240  
 aatctaacaa ggtagtact ggtgcatcat caaatgctgc caaagttgat ggggccatca 300  
 tcagctgaag gaaaggagaa aaactcattg aanggagtcg tctgcttctt ctctgaatt 360  
 aactacagaa gagtctantt ctgaagttcc ttaccaagt aacaactccn tgtcaagcct 420  
 tgtgggat 428

<210> 372  
 <211> 155  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-021-Q1-B1-B7  
 <400> 372

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnn 155

<210> 373  
<211> 437  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-021-Q1-B1-C10

<400> 373

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tcggtctagc taggctgatg aaccaattg atacccattt aagcacattc gtcaatggag 180  
aatttgggga tttcggttat gttgctcccg agtattcaag aaccatgggt gcaactccaa 240  
aaggagatgt ctacagcttc ggtgttgtgc ttctagaagc tagtaacggg ccaaaaagca 300  
acgagtgtaa caaaagtatc tgaaagaaaa agctgaggaa gaaaacttca agggtaacct 360  
cgtggaatgg attacaaagc tatcaagtga atcaaaactg caggaagcaa tcgacaggtc 420  
ttacttggga acggtgt 437

<210> 374  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-C2

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gggtgactaa tggtcgttcc atcggaatac aaaaacacaa caaactcaaa accaaaatct 180  
ccataaacat atatagagct attaattatc atattaaact ctacacact cttattataa 240  
aatgttttga ctctgatat tagaccaact gcaaaaacta aactaatcac tccaagattt 300  
aacantcaaa tcattattan gnttactata atctaanata ttactagtta aantaaacct 360

ttttgtaatg aggatattgg tgatgatctg gtcaaccggt gaaccattcc ntacg 415

<210> 375  
<211> 495  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-C9

<400> 375

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gttganggct ananagtcgc aggaaatggg ccattggggag aggccgagga cttgctttac 180  
cccgggtggca ncttcnacctt attgggtttg gctaccgacc cagangcatt cgctgagttt 240  
aaggtnanng agctcanaaa cggaagattg gcnatgttct ctatgttttg attcttcgtt 300  
cantccatcg tcaactggtaa gggaccgata taaaaccttg ctgaccattt ggccgatcca 360  
gttaacaaca acgcatgggc cttccgcca caactttgtt cccggaaaat tagccaantt 420  
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aacttgttta anatg 495

<210> 376  
<211> 366  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-021-Q1-B1-B6

<400> 376

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cattgctagg aaccgtccca acatgactcg cttccgtttg tgcattcattg agccaaaagc 180  
cccagactat ctgactctag agccactgga tattggattt ggagccatag tagagcactg 240  
caaggatctc cgtcgctctc ctctatctgg cctcttgacc gacaagggtt ttgaatacat 300  
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aagcat 366

<210> 377  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-021-Q1-B1-D2

<400> 377

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attattcacc gcccgatgat ctccaccgga ggaatcgctg tttccccccg tagagttttc 180
aaagtccgag ccacagatac gggagagata ggatcagctc tattggcggc ggaggaagca 240
attgaagacg tggaagagac ggagcggcta aagagatcgc tcgtggattc gttgtacgga 300
acagatcgag gtttaagcgc atcgagcgaa accaagagct gaaatcgga gattctaadc 360
acaacaagct cgaagtctaa agaaccctac tccanctccg acgggaagct ctttttcct 420
tctcaacggg 430
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<210> 378  
 <211> 361  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-021-Q1-B1-D3

<400> 378

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gttgaagcat acaaccgtga gaggagctca cagaaggtga aacggcatca tactttggct 180
aagtctgaag ttttgggacc tattgtagtt gtgtaggaag aagacataaa taaaacattt 240
gctgtggtcc gtcgattgta aataaagatt ttagttgtag aaaatcttaa caagcaacac 300
taagctataa aaacgtcgat atgatnaaag aaaaanaaac nggnnnngaaa nnaaaaaaag 360
g 361
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<210> 379  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-021-Q1-B1-D9

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 tctctgaact ttcacagctt cttatttcag aaatcgaaac cgtagttgaa attgaattga 180  
 ttacggttat ttaaattgaa attggttgca ctccggttta cgggaaccaa tcaatatgat 240  
 gaatgtggag atnaattact gaaaatataa ttgtgggtgt tttgttaaaa agaaacacta 300  
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<210> 380  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-021-Q1-B1-E1

<400> 380  
  
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 gaattaagcg aggaagaatt gaatatgtat ttggatttgc acccattctc taatgcctct 180  
 ccgtacactg ttgtggagac aatgtcactt gcaaaggccc ttattctctt ccgtgaggtt 240  
 ggcataangc acttactggt tanaccaaaa acctccaata agacctccag tggttaagtat 300  
 atgacacggc atgaacttca tgccggaaca tatactaagg cctgcaatcc cctccggttt 360  
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<210> 381  
 <211> 397  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-E3

<400> 381

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aaaatccgga tatttccggc gatagacaat cgggccaaga tggtcgtact cagaacgtga 180  
tggcttgta agctgtttct aatattgtta agacctcact tgggtcccgtc ggctcgaca 240  
agatgttggt ggatgatatt ggtgatgtga ctattacaaa tgatggtgct actattotta 300  
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atagagaagt cggatgatggg actacatctg ttgttan 397

<210> 382  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-E6

<400> 382

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnccaccggt 180  
gccgcccga ccaccatgcc agcgggaatcc aatccttacg tttctccttc cctgccccca 240  
aggaatacga tggattcggg gaaggatacg ttagggaaat gggggaaaat ggctgcccac 300  
gccaccaaga aggcggagga tctcgccgga aatttttggc aagcacttga aaacaggccc 360  
aagtgtagca natgctgctg tttcacgaaa ttgctcaagg ggacaaaaat actgcagan 419

<210> 383  
<211> 385  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-F1

<400> 383

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ttcaaagttc agtcaatca aagcctccgt ttcattttcc cgcanaacgc taactcgaat 180  
tcganactct tcctctcccg ccgatcactc annccgcanc gccgtggaag cgatcacgag 240  
tcgatccaaa acctncttga aatctcgtct ccgtggagga gaaactctct atggncctct 300  
tttactctcg ttctcgccga cattagncca gatcgtgct cagcccggtt acgattacgt 360  
cntcgttgat aaggaacatg gtcnc 385

<210> 384

<211> 391

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-021-Q1-B1-F2

<400> 384

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ttttcttga tctgagcgc tccaaccctg cattggaaaa actgaagcgt caattagcag 180  
aagcggatgc agcgggtggag gcacgaaaga aacctccaga ggaaacaggt ccaaagatga 240  
ttggagaagg gcttgtgatc gatgaatgga aggagcgtag agagagatat cttgcacagc 300  
aacaaggcga aggagctgac tctgtctgag agactaaaag agttttctca ggacaaaaac 360  
aagtgcgctt gtgaagatna agaaaaaagg g 391

<210> 385

<211> 398

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-021-Q1-B1-F5

<400> 385

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gatgcagggt gttggacaca atgatgagaa agtacttgta cttgcagcaa ccaatacacc 120

ctatgctctt gatcaggcta tccggcgacg ttttgacaag cgtatctata ttcctctccc 180  
agaggccaag gctcggcagc acatgttcaa agtccacttg ggagatacac ctcataattt 240  
aactgaacct gattttgaat atttaggcca aaagacagaa gggttttctg gttcagatgt 300  
gtctgtttgt gtaaaagatg ttctgtttga acctgttcgt aaaacacaag atgcaatgtt 360  
ctttttcaag tctcctgatg gtacatggat gccatgtg 398

<210> 386  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-F9

<400> 386

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tacctcagaa tcctaagcaa cagcgcgcgg gattctacgg atcctgcttc tgatccatct 120  
atactacaat cagtgaagaa gctgcatggg ttctgtaaaa tggagaaatc agatgatctt 180  
gtggctagaa tttatccaca attcaataaa gtcttccatc gttcggttgc ttcactaatc 240  
tcaagtccga agtcaggggc gtccaaaagg gcttctctct tggctaagcc aattccttca 300  
atTTTTTcct ggatttgggg gataatgggt tcttgcacga atcctgaacc caaagttttg 360  
aaggacaatt ccttccggct catgtcttaa gccgttgaag ttctcaagat gccgccngtg 420  
g 421

<210> 387  
<211> 412  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-G1

<400> 387

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tttctaaag gattcgtgtt tggaaccgcc acgtcagctt atcaagtcga aggcgagact 180

catcaagacg gtcgtggccc aagcatttgg gatgccttcg tcaagattcc tgggaagatc 240  
 gccagaatg ccacggctga gataacagtg gaccagtatc accgttacaa ggaanatgtg 300  
 gatttgatga agaaactgaa cttcgatgct tacaagattt tccatttcaa ggtccaagat 360  
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<210> 388  
 <211> 470  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-021-Q1-B1-G3  
 <400> 388

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 tcattcttatt tcaagaatct tcgtggctga tcccgtacc agaataagca taccagagat 180  
 caaaacccat agttggttct tgaagaatct ccctgctgat ctaatgaacg agagcaacac 240  
 aggaagccag ttccaggagc ctgaacaacc aatgcaaagc cttgacacaa tcatgcaaact 300  
 catctctgaa gccacaattc ccgctgttcg aaaccgttgc ctagacgatt tcatgactga 360  
 caatcttgat cttgacgatg acatggatga ctttgactct gaatctgaaa tcgacattga 420  
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<210> 389  
 <211> 389  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-020-Q1-B1-G9  
 <400> 389

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 tgcgggttgc atcaccgana gacatggngg antcgagatc ccctcctgta acgaataagg 180  
 tggagcatgt gatggatatg ttcggtgacg ttaggggtga caattacaac tggctccgtg 240

acgattctcg caccaatccc gacatgcttt catatcttcg tgaagaaant cagtacactg 300  
 atttcgtcat gtctgggacc aagcantttg acgaatcadc tgtntgctga aanaagaggg 360  
 aggatcaaag aanatgatat atctgcagc 389

<210> 390  
 <211> 390  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-020-Q1-B1-H1  
 <400> 390

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 ccgagaatgg ttttatcggg gaagcaaaca ctctctccga aaatcggact tttccgacga 120  
 aacccttcat cctcactagg aagatctcct gtttctctct cgtttccatc gacggagctt 180  
 ccaaaacgca ccgttttagc cgtgtcaaag ccgcttcadc tctcttcttc tctgagagct 240  
 aagtctccgg tagtgagatg tgaagcttat gaagctgacc cgattcagag cccatcccga 300  
 ttgggtgatg aangctggng gcggggggaa aacgaaaatc agaaggcggg taaagaaaat 360  
 tgaagattng ggatttacnt tggcaacttg 390

<210> 391  
 <211> 484  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-020-Q1-B1-H11  
 <400> 391

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 agttccggta cagagacttc caattaaagt ggcttcacct tctctgtatc ggtgtaacaa 180  
 ttctgtctca atcagacgtt caatttcagg ttttgccatg gacaggaaga taaacttttag 240  
 ggctccgtcg caattctcga tccgagctca acagtcggat ttgaaggaaa gcttagctgt 300  
 gtcttcttca tcagtagagg ataaaggaaa tgttcttaga atcaaggaat gggaagtaga 360

gatgtatcag gaggaattag ctattagtca aggtattagg ataaggagaa aaccaccaag 420  
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 aatc 484

<210> 392  
 <211> 471  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-020-Q1-B1-G8  
 <400> 392

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 gtagccaacg ggtctgaagc ggttgaactg gtctcaattg cagatgttct tagaagagcc 180  
 aaagtagatg tcacggtttc atcagttgaa cgatctttgc ggattacggc attccaaggc 240  
 accaaaatta tcaactgacaa attgattggt gaagctgctg agtcatacata tgatctaate 300  
 attcttcccg gagggcatac tggctcagaa cgtctgcaga agtccaaaat tctcaagaaa 360  
 ctgctcaggg aacaacatga atctgggcca atatatggga gctaccaact cttcatcnac 420  
 cgttttgcac aaacatgggn ttacncaagg ngaagaaaaa gaacngttta c 471

<210> 393  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-020-Q1-B1-H12  
 <400> 393

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 tcttttgatc ttaccaatgg cggctccgaa gaaacccctt ttcccgtaa gagagaaaat 180  
 tctggtgaac gtgtgaggtt ttcccgagaa gagatacttc agcacagaga gtctgttcaa 240  
 gtctctgatg aaattcttag acgctgtaag gaaatcgcag ttgagctttt tggcgaagag 300

cagagttggg ggaatcatgc agccgagagt aaaataacaa atcatactca gcatcgatcat 360  
accgagactg ataaccgtga ctggcataat ctttcccaaa a 401

<210> 394  
<211> 438  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-020-Q1-B1-H3  
  
<400> 394

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tgttgtgctg cttttcactc tcttctgctc gacgaatttg gccttgtttt ttgtttgttt 180  
gtcgtatccg acgcgagggt attgagaaac cgtggcttaa gacggaggaa gaaagatggg 240  
aanctaacgg ggattgagaa acttgacgaa atcccgnatc agggaaagag aagttaataa 300  
nggagacatc ataagcaatg aagcttgtgg gataatcaag tgtaacctcc nacgccttgg 360  
ttaaacaana tcaaagctcc cggttcaaaa ttgtgtgggc ancttgtgaa aaagaatttg 420  
attaagccac aagaaant 438

<210> 395  
<211> 244  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABL1-020-Q1-B1-H8  
  
<400> 395

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tttgccatgt tgttctctat gcttgattat gctttgtgtt cttcaaagac ttaatgttag 180  
atttctttgg tttcccgact tcctcttaat gggtataatt aattactaca aaaaaaaaaa 240  
aaaa 244

<210> 396  
<211> 408

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-020-Q1-B1-H9  
  
 <400> 396  
  
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 ggttgctcaa gtctgagaac ttttcctctg atttcaacta gaatcgaatg tctctatctg 180  
 caaaacaccg ccattgaaga agttccctgc tgcattgagg atttcacgag gctcactgta 240  
 cttatgatgt attgttgccg gaggttgaaa accatctccc caaacatttt cagacttaca 300  
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<210> 397  
 <211> 445  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 397  
  
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 agaaataaac ctaatctcgc cttgcgatgt tcagtctcaa ttgagaaaga agttcccgaa 180  
 actgaacgac cctttacttt ccttanggat tctgatgacg tcaactccatc ttcttcttct 240  
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 gatggaattg gaagctatan aaggggggtc ctaaagttta aaagaanatg tttgggtctc 360  
 caacctggtg ggtgggaggg tgggaatcan gtcgtgtgtt tgcaaggacg ggggaatgtcn 420  
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<210> 398  
 <211> 426  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
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<400> 398

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atcagcacag ctgcaaactt gaggatattc ttcttgaaac tgatcggatt ttacgaccgg 180  
aagggattgt gatgttccgg gatgaggttg atgttttgaa tgatgtgagg aagatcgttg 240  
atggaatgag atgggatact aagttaatgg atcatgaaga cggtcctctc gtgccggaga 300  
aaaatcttgt cgccacnaag cagtattggg taccgcgcac natggaaaca antctccgtt 360  
ngcctttnaa tatgannaag aatanacaaa aacaagaaac tcctcaaggt tactaaacct 420  
tgaagg 426

<210> 399  
<211> 403  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-A5

<400> 399

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agtttcctca gaggaatggg aatgaaaatg cantgcaagc ttctgcgaat gtacaatctc 180  
ctcttgatcc agaagctgca gagggtttgc agagtgaagc tccttttgag tttcaggtcc 240  
tgagattgac acttgaggtc gtctgctcat ttgttgataa aagtgtggct gctcttgaga 300  
cagaagcttg gnctgtcctt gatgaactca ctaagaatgt cagcactgag attacttttc 360  
aaacttcgta atattcaaga ttctcagtgc tgacattctt gaa 403

<210> 400  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-021-Q1-B1-A6

<400> 400

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cgctctgacc ttgcgtctca ggttttttcaa gagatgaatt accaggggtt ttatccggac 180  
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gtggtttata gaattctatt ggatgcatta tgtgatgctg gtgaggttga tgatgctatt 360  
gaaattcttg gtaaaatctt tgagaaaagg gttaaagggt nccgaaacga tgttac 416

<210> 401

<211> 408

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-021-Q1-B1-A7

<400> 401

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ttgttgcttc gaaaaagaaa aaaaactctt gagaatgtgt ggaaaagaga ggtgattgtt 180  
gttcatagat caatactatg tatcttttgt atcatcatct cttgaatctt ggtactgac 240  
ttatctgaat agtatgaatt tgcattctcat aagaccatat gaacaagagt gagttatgta 300  
ttcanaaaca ggaatatttc cagacacaag aagcatcata aagaagcaga aaaattcaag 360  
ggagagctac acaaagacaa cgcgcaaaag aaatagactc cgaaaagc 408

<210> 402

<211> 406

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-021-Q1-B1-B1

<400> 402

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 ggtcaagaaa catcaagatc aatagacaca atggaagctc atcatcataa ctacaatgag 180  
 acaacacccat ggactcatca aagaaaacca tcaatttcaa tgccaacttc accaaatgtt 240  
 ctcatgatct ccgacccgac aacatctttg ttttccgaaa accacaagaa cagtgggtcg 300  
 actggcaaat ccgtaagtt tctctctcag cggatgacca aagtctcatc tctctacata 360  
 gaaagcggta atggtgatga tgatcgctcg caaagccatg ataatc 406

<210> 403  
 <211> 386  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-021-Q1-B1-B4  
 <400> 403

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 tggacaacat gctgtccttg taacaaaaca aggagaaagt ttttcttggg gagaggaatc 180  
 tgaaggtagg cttggccatg gtgtggattc caatgttcaa catccaaagc tcattgatgc 240  
 cctcaatacc acaaatattg agcttgtagc atgtggtgaa taccatagtt gtgcaagtta 300  
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 atgaatcagt cactggggtc cccaaa 386

<210> 404  
 <211> 399  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-021-Q1-B1-B5  
 <400> 404

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 tgtcggttac tttcccgaa tcttctggct ccttttagcag aattgtccgg tgtcggcgtc 180  
 ctccatcggg tggttcctct accaacgggtg gttggctctt gtctagcttc tccgtcgtcc 240

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<210> 405  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-020-Q1-B1-D11  
 <400> 405

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 atccctgcga aattttcttca cattttgagc tcaaaagcct cgatttctcc canatgtcnt 180  
 agtttcgctt cttcttcttc ttccacaatt cggaggaagc ctctaacnct aagtatcttc 240  
 aggatcttca gacgcggagg aggtgtcaga tacggaggac gaatggctga agaaactacc 300  
 agagaagaac aanccactgt attcgcatag cttaccttgt atcgaagcgt ggctgaggaa 360  
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 tg 422

<210> 406  
 <211> 523  
 <212> DNA  
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 <223> unsure at all n locations  
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 <400> 406

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 gatcatcgtc ggaaatttcc gaattgttgt aaaagaagtc caatttaggc tttggatcct 180  
 cagtttaatt tatctgggac ttttggttgc tgaaatctct ttcgggtttt gtcctaatacc 240  
 tcattanttt gggtttcgtg agtctcgttt tataagaaca tgggacaaaa gagattgttg 300

ttcttgctgg cagtttttac ttttcttggt tcatcttcat atggtanagt tctcaagttg 360  
aagagcgatg atgatcgacc tgtttacaac catacgcttg cgcgcacgc tgtggagtat 420  
gcctccngcg gtccaagaat ccggatttga caaaaaccct caacttggnc ttgchnaaana 480  
tgcnaatggg gtttgacaaa agganttcca aattataaaa ggt 523

<210> 407  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-020-Q1-B1-D6  
<400> 407

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agcctcgagg gaaaggttat tggggctttc tgtttcttgc aaatcccag ccctgagctg 180  
cagcaagctt tagcagtcca acggaggcag gacacagagt gtttcacgaa ggcaaaagag 240  
ttggcttata tttgtcaggt gataaagaat cctttgagcg gtatgccgtt tcgcaaactc 300  
attgttggga ggccacagac ttgaacgang accaagaagc agttacttga aacaagtgtt 360  
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ttctcaaagc tcgcggaagg cactgacata acctcggcgg cgcttggcgt ttctctccag 180  
aaagctcgca gctgggacga aggtgtttcc tccaaattct ccaccacgcc attgtcagat 240  
atcttcaagg ggaagaaagt cgtcatcttt ggtcttctg gggcttacac gggagtgtgt 300

tcacancagc atgtgcctaa ctacaagagc cacaattgat aatttttaaag ccaaanggaa 360  
 ttgantcctg tcanccctgggt gtcccngtta aaggatccct ttgcnatcaa atggntgggg 420  
 caaaaaaaaaan cttggtgccca aaagatgcaa attgag 456

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 <212> DNA  
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 cttcttcgtt cagagaacaa agatgatgct ttattggctt tccaaatctc tttcgatctt 180  
 gtacagaatg agcaccaggc attcctcatg agtgtagag atcgcttcc agcgcccaag 240  
 acccgctcctg tagaagcaat tcaagctgtt gaaacctcta ctgctcaca tgagaacact 300  
 gcanggggat gttcagatgg cggatganac tccatctcag acaattgtgc atgaaacaga 360  
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<210> 410  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 410

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 ccagcaacta gccctgctcc acagcttggc ggggaagggc agttgtacgg tgctcagcag 180  
 tatcagtatc ctaactatct tccaaacagt ggaccgtatg cttcatctgt ggctacacct 240  
 acccagccgg gattctctct gcaaaacaaa cctgctgggtg tgaagacact acctgcggat 300  
 agcaataatg ttgcttcngc tgctgggtatc aaaaaggaa ntatggntna nctccattga 360

acccancnna caagccaacc cttaaaaccc aagttaattg aagggaangg ttccccaaaa 420  
 ggagtttggg gccgg 435

<210> 411  
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 <212> DNA  
 <213> Arabidopsis thaliana  
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 taacggtgga tcatcgacga cggagagtgc gtgtggggac aagtgtacga gagattgcaa 180  
 atgtttaggg tttttctaca atagaaagag ttcgaggtgt tggttgggct acgagctcaa 240  
 gacattgact agaaccggag attcttccct gggtgcttat gtcaaagctc ctaatgcaaa 300  
 caaaaagtca actccttgag gnetgaaagt catatatata tatgaaaatt aatgtgttgt 360  
 gtgtttaana agggtccttt tgggtaccct ttttaaaatt aaatggggtn cggatcccaa 420  
 aa 422

<210> 412  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 gtttatgtcg acgangatga anagacaggg ctgcanctca gattccggtg atctacggng 180  
 gcagcccagt cgtctannaa nangatcccc gcgttaaaaa ncgttccggc gactccggcg 240  
 gcgaataact ggaatacggg tatantcttc ctctcgccgt tagctctttc tcccgaatca 300  
 tcaccggtng accaannanc ggntgacaaa aatcagtcga cggcgggtgg cggatgaaaa 360

aacgccngtn ttcaagggat gggaacatcc gctgcgcctt ttaattacga gnccatcgaa 420

<210> 413  
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<212> DNA  
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<400> 413

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ggatctcaaa ctctgagtca taacaaaaat ggatctattc ctgagggtta atccattaac 180  
ggtcacacgg gacaaaagca aggacctttg tctacggctg gaaactcgac aaatataaag 240  
tggcatgaat gttctgttga gaaagttgat agacagagat tgcttgatca gaaaggatgt 300  
gtgatttggg tcaccggctt taagtggctt aggggaagagt actttggctt gtgctttgaa 360  
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<210> 414  
<211> 452  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 414

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tctttgattt acagtggctt aaactcaacc ctaccgagca agtcttcttt taaaaactca 180  
ccgaatcatc atcatctcgc gacgttttct actcctccat cctccccaag ctccaagcga 240  
tctctttcac tcatcctcac tcaatttcgc ctattcacgg gtcaccttaa gtgggattca 300  
caagattcaa agccgcattt agttgggtct tcaaggagac acactctctc tcaaaatggc 360  
tggagactga tgcggatttc tcaacgtatc cctggcaaaa gggcttcgtc caaaagctag 420  
aagttacgcc ctctaataac ccgaagctaa cn 452



<210> 415  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-020-Q1-B1-F10  
  
 <400> 415

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 gaanacngnn gcataanagg attaccgtcg ctcaaacag ctcgccctc cttcaaaatt 120  
 gtcgccagtg gcgtcaagaa gatcaagacc gacaagccct tcggaattaa cggcagcatg 180  
 gacttgaggg acggcgctga cgcctccggc agaaagggca anggatacgg tgtttacaag 240  
 tacgtccaca agtatggagc taacgtcnat ggatacagtc ctatttanaa cgagaacgag 300  
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<210> 416  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 416

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 agttcccgctg gtggttgga actgcatang ctttgcagtg aataggacat tctttcctta 180  
 ttcacaagct gcacatatgt tggccaatct aggtgttgac ttgttcagaa ttgacagcgt 240  
 tattacctct ttcggcttgc cantgggccc tttccanctt ggtgatttgg ctggacacgg 300  
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<210> 417  
 <211> 432  
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<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-020-Q1-B1-F6

<400> 417

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taaagtagca acttcaaagg gactcaatct ttacgctttc ctgggtatt cttatcttct 180  
tgcttctctc cttcttcttc cttctctgtt cttcacgac aggtcaagat cacttcctcc 240  
actaagtttg tcaatacttt ctaaaatagg acttcttgga ttgctaggat caatgtatgt 300  
gatnacagga tacataggca tcgaatacag cagcccaacc ttancctctg gcaattanca 360  
anacaacccc ngccctaact taacctnnca attacctcaa ggttgaaaan cnaaatTTTT 420  
TTTTCCAATT aa 432

<210> 418

<211> 471

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-020-Q1-B1-F8

<400> 418

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ccaagaagaa actcgacgaa gatgaaccat cacaaagctt cgagagcgtc gctctcatca 120  
tcggcgttac tggaatcgtc ggaaacagct tggcggagat tctccctcnt tccgacacac 180  
ccggtggtcn aanggaaagt ctacggcgtc gctcgtcgtc ctgctcctac ctggaacgcc 240  
gatcatccga tcgattacat ccagtgcgat gtctccgacg cngaagacac aagatcaaag 300  
ctttccctt naaccgatgt cacacatgtc ttctacgtca cctggaccaa tcgtgaatcg 360  
gaaannnaaa aactgtgang caaatgggtc aatnccnccn taaagttccc caangngnat 420  
ttcccataag gcgcaaaatn ccccaanatn ttgttccca aaanagggga a 471

<210> 419

<211> 448

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-020-Q1-B1-G3

<400> 419

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gtttcggaca gtacaccgag tactaccgtg agatgaggaa gatgtgtatg gtgaacctct 120

tcagcccgaa ccgtgtcgca agtttcagac cggttagaga agaagagtgt caacggatga 180

tggacaagat ctataaagcc gctgatcaat caggcacctg tgatctaagt gagcttctct 240

tgtctttcac taactgtgtc gtatgtagac aagcttttgg gaaacggtac aatgagtacg 300

ggacanagat gaagagattc atanatatcc tgtacgaaaa gcaagcactt ttggggcaac 360

cctgggtttt ccccgaaactt ttcccctaatt tcnggttccc ttgacaacct cantggggccc 420

aantgcacgt ttcaaagaaa gctttcaa 448

<210> 420

<211> 425

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-02-Q1-B1-B2

<400> 420

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tcgtctctca aactcaaata tctgaaaaaa cttttctggn ntannnnaat aagttacacg 120

agactttcaa tttctctgta tattttcctt ttgattccca gaaaatgtca ctagattcca 180

ctttctagct tgcgttttct cgggaatctg aagtttcctt ttgtgttgaa tcgctgggaa 240

aaatctgatg gaagcagctt caaggttttt tgtgtanaag tattecgatt ccgtcgacta 300

cnacggcgac gggcgnggt tcacgttcac tcgaacgccg gtttaaacta cgtttgtgtt 360

gttcggagtt tcgtgttttc cccgnacgcg ggaaggtctt ttngaacggg cgtaaattgg 420

gnnggg 425

<210> 421

<211> 411

<212> DNA

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<223> Clone ID: ARABL1-02-Q1-B1-B9

<400> 421

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caaccgtgcc cttcaattcg cgacgagtga cccggctggg ccggtatact tgtgtgctgc 180

cagggaaagtc atggagtcgg agatcgaacc atactccttg aatcaagact tgtgggtctcc 240

agtcgagatg ggccggactcc ctgaccaggc agccagcaag attgccaacg ccctggccgg 300

tgccgagaaa cctctgggtg tgacgggata cgccgctagg aaccacgacg caccgtctgc 360

cctcgtcgaa ctagctgata cgggtgaangg cttganaatc ctccaatggg g 411

<210> 422

<211> 397

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-02-Q1-B1-C5

<400> 422

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ttcgtcttta acagtgcatt caatggcaaa taagaagcca tcaccttctg ctgcaacaag 120

aacaataacc tcaaagaaga gcacagcgac tccacagggtg aaactgctga caagagtcga 180

gcagctcaag cttctgacca aagccgagaa agcaggactt ttgtcttttag cagagaaatc 240

aggtttctct ctatcgacca tcgagcgtct tggattgctg accaaagcag aggagtctcg 300

cgttttgtct gccgccacaa acccggaac gcttgggaac gttattcact ttgagcctcg 360

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<210> 423

<211> 414

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-02-Q1-B1-C7

<400> 423

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ctgttgagcc gcgtccatat gggaccttta atacgattcg agaggtttac gatgaagctg 120

gaataactgg cttctggaaa ggtgtaattc caacattgat catggtaagt aatccgtcaa 180

tgcaatttat gttgtacgag acaatgctaa ccaagctgaa gaaaaagcgt gccttgaagg 240

gtagcaacaa cgttaccgct ttggagacat ttcttctcgg agctgtggcg aaactcggag 300

ctacagtcac aacttaccct cctccttggt tgtaaatacnc cnacttcaag ccaaacaagg 360

tcacaacaag gggacaaaag gacaacaatt acaaaggaac attgggaccc aatt 414

<210> 424

<211> 414

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-02-Q1-B1-B10

<400> 424

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taccagaatc gttcgttcag cagcagcacg atgggtgaaag tagatacact tacgcgtatc 180

catcatatca accaactcag caattcagct cttactccgg gatgttttcc ccggaaacgc 240

atccggagat tgtgaggagc tttgagtcgg cggatagaaa ccggagcgya tttctcgaag 300

aatcggagct ccggcaagcg ttgtcgttat ctgggtacga tggaattagt aacagaacga 360

ttaagttgct gttgtttaat tacaaaagatt cctgtanatt ctctgcttcg ggct 414

<210> 425

<211> 417

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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tcaagaactc aaagaaaagc tctcagcttc atcctccaaa gcttcttcaa tgtggggagt 180  
ctcactcctc ggtggagacg acaaagctga cgtaatcctc ctcaagttcc tcagagcaag 240  
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gttcaaagca gagaaattga cagaagaaga tctggggttt aaagatttgg aaggtaaagt 360  
tgcttacatg agaggctacg acaaaagaag gacacccagt tgttacaatg ctttaang 417

<210> 426  
<211> 417  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-02-Q1-B1-D1  
<400> 426

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gaaaaactta gatttttgggt tttgctttcg gagttattcg aatttgaaat atctgaatct 180  
gttgattcat ttattctccg catgaagctg tggttggtgaa gtttttcgga gatttaggggt 240  
ttctgagttg ttctctgttt ggttggtgaa taaagcgaag atgaacgtga tgcgtcgtct 300  
caaagagcat tgcttcgggt cggacctcca ttctctcgga ttctggtggg gactaagccg 360  
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<210> 427  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 427

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ccaaggaaga gagtaagagt actactaaac cagaatcagg ctcaggagct ccaccttcac 180

cttcaccgac tgatcctggg cttgatttca atgcttttga tttctccggc atggctggga 240  
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<210> 428  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-B1-D3

<400> 428

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 atctcctctt caatgttctg tgaaagtga gttcccacaa tctgatccat tcttggtgaa 180  
 catgcttgac taccagatca ttcctttagg ctttcaatac ataatgatcg gttgggatcc 240  
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 agacgaattc gttgtgcttc ttcgctaacg taatcanttg ttggtgttga aaaattccga 360  
 aatgaagtgg atgaaagtca agaaaanctc caatgcctca atgcaagg 408

<210> 429  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-B1-D5

<400> 429

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 tcatccgata agaaggatct cgttgtagag gatgtcagca acaaagagct taaaagccgt 180  
 atagacaagt ctttcaatga gggtaatgaa gatgctttac ctggagttat tgaagcactt 240  
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gagagtctac ctttcaaaga tgatgtcaag ggatgaagat tttgaatccg atttcgaaga 360  
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<210> 430  
<211> 422  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-02-Q1-B1-D7

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tgaattggaa ttatttgttt tcttattagg cctatcctga agccaaagga aatgagatcg 180  
gaattcctcg gggaattcca attccacatt ttcaagaaat aaggaggcaa aaatgttcat 240  
atatgaattg gaattatttg ttttcttatt aggccatcc tgaagccaaa ggaaatgaga 300  
tcggaattcc tcggggaatt ccaattccac attttcaaga aataaggagg caaaaatgtt 360  
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ag 422

<210> 431  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-02-Q1-B1-D9

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tgctaggagg cgttcatgat ctccgaggaa atcagaacag tggagagatc gagagtctcg 180  
ctcgatttgc cattcaagaa cataacagac aacagaacaa aattcntgag ttcaaagaaa 240  
gaatgtcaaa gcaanggaag caaggaattt gcagggaacc aatgttataa cttaaaccct 300  
aagaaacaaa aagaangnga ttaagaccaa naaattttga aancaaaatg tnggtnaaac 360



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<210> 432  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 432

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 tcgactttta attccggagg cggcggagggt agaaccggtc gtgttcccggt cggtatcgga 180  
 cggaagagac tgaggattgt tgtcaccggt ggagctgggt tcgtcggtag tcatcttggt 240  
 gataagctta tcggtagggg agatgaagtg atcgtgattg ataacttctt cactgggtag 300  
 gaaggagaat ttgggttcat ctattctcga atcctaagtt tgaagctaata tcgacacgat 360  
 gttgttgagc caatcctcct tgangtcgat nagatttaac aattaacctg t 411

<210> 433  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-B1-E3

<400> 433

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 aagataagaa gaagttcatt accaaagatg aagaaccaga acagttagtt catcttaatt 120  
 ctcaattttt tccatcatga gattgtagaa aataaacaga aactcattgg atggtaatgt 180  
 aatttttagtc tcctttgcag aatttagatt ttgtttggta tgtgacaatg acatgtagac 240  
 tagtgggttg tgtagtatt gtatcaatac acgaaccata aatttgatcg aaaatatattg 300  
 gtttttgtaa gttaagtcaa aagaatctta aactcttgca tgcacatttt tcataaacat 360  
 gcaatattgt gactggacga aaatggntat gggatgagat ttgcattaca actta 415

<210> 434  
 <211> 178  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-B1-E7

<400> 434

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 cttacaaagt gttaaccggg aatgaaggag taattagaag cgtgtgtgac aaggttgatt 120  
 gatgtatatt tataattatc aaatgttnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnn 178

<210> 435  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-B1-E8

<400> 435

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 actcacaccc acttctccga ttctcttcac taaagtaaca ccaacaccaa taatccacaa 120  
 ccacagatca acatgcacta taccacacaa gctcgtcta cgtctcctcc gccgtccgc 180  
 cgtcgctgga accgccgtat ctgatcaaac agaaggaggt ggagatgttc ttttaaacc 240  
 tgaagaagag aaacgtgttg aggtggcgga ttatgattgg acagaggaat ggtatccatt 300  
 gtacttaact aaaaacgtcc ctgaagatgc gcctcttggc ctcaccgtct acgattgtca 360  
 aattggtttg tataaagacg gtgaangaac acttcgttgg tacgaagatt cggt 414

<210> 436  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations .  
 <223> Clone ID: ARABL1-019-Q1-B1-F3

<400> 436

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 cagccctggc cgggggctaa tgccagcgag ttttaaagtg aaatctgcgc cacttgaggg 180  
 aaatgatggt tcatttgagg agtttttaga tccagacttt ggtggatcag ccattggacg 240  
 tgttagccct gttgactctg gtttgtggtg gatcatattg ctgagagctt atggaaagct 300  
 cacgggtgac tacacgttgc aagagaaaat tgatgttcaa acagggatna aagttgatac 360  
 tcaagctttg tccaaccgac ggttttgaca tgttcccgac tctacttgt cactgacgga 420  
 tn 422

<210> 437  
 <211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-F6  
 <400> 437

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 ctcaatcttc cccactcatt ttcactggta cacttctctt cttgcctcac tcacctcttc 180  
 tcctccctcc attatccaca catacgacac cgttttccat ggcttctccg ctagactcac 240  
 ttcacaagac gctagtcaac tcttagacca tctcatgtc atctctgtta tcccggaaca 300  
 agtccgtcac ttgcacacca ctcgttcccc tgagtttctt ggtcttaggt ccaccgacaa 360  
 agcgggtcta ctcgaagagt ctgatttcgg gtcggatcta agttatcgg 409

<210> 438  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 438

aaccccnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 60

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nnnnntggat cttctctttc tctttttctc tcttctctc tcttacctct ttttcaagat 120
ctggaaactc atagactcaa agcaagacaa agattgctac attttagact accaatgtca 180
taaaccaacc gacgatcgaa tgggtgagcac tcaattcagt ggagagatca tttatcgaaa 240
caataccttg ggtttaaccg aatacaagtt cttctcaaa ggccataagt aagctcaggg 300
attgggagaa acaaaaccta cgctccaan ggaacttggg cntttgaagg gnccgaagaa 360
agagcgttcc ttccgttaca aagatnggga ttctcccgaa gatgggaann agttctacgt 420
gggacaagca tccg 434

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<210>      439
<211>      423
<212>      DNA
<213>      Arabidopsis thaliana

<223>      unsure at all n locations
<223>      Clone ID: ARABL1-019-Q1-B1-H1

<400>      439

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gctacaatct aggcggtatg ggttgacgag cgggagttat cgctgtggat cttgctaaag 180
acatgttggt ggtacatagg aacacttatg cgggtgttgt ttctactgag aacattactc 240
agaattggta ttttggtaac aagaaatcga tgttgatacc cgaaactgct tgtttccnag 300
ttggtggctc tgcggttttg ctatcgaaca agtcgaaggg acaagagacg gtctaagtac 360
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taa 423

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<210>      440
<211>      424
<212>      DNA
<213>      Arabidopsis thaliana

<223>      Clone ID: ARABL1-019-Q1-B1-F2

<400>      440

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gtttgtccaa cacaaagttg atgtaatctt tgctgggcat gttcatgcct acgagagatc 120

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gtaccgaata tcaaattgtgc ggtataacgt gtcaagcgga gatcggtacc cagttccaga 180  
 taagtcagcg cctgtttata tcacagttgg agacggagga aatcaagaag gtctggctgg 240  
 aagggttacg gaaccacagc cagattattc tgcatttcgg gaagctagct atggccactc 300  
 tactctggat ataaagaacc gaacacacgc tatataccac tggaaccgca atgatgatgg 360  
 gaagaaagtg gcaacggatg aatttgtatt acacaaccag tactggggaa agaacattcg 420  
 acgg 424

<210> 441  
 <211> 454  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 441

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 agagaataga gatgattgtg tcaacagagt tccgccacaa ctctaaggag gtcgaccgta 180  
 agaattttca gtacatcgag tatttgcttc ggtaggtac taaacagctt gatcaactca 240  
 aaagccctgc catagttagc ctctcctcga tcaaggctgt tacatctaaa acctgatacc 300  
 ttattttata gcttggtgct ctagtacca tagataacaa agctgaggaa attgattcgt 360  
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 aataaagaga aatgtgatca caaatggata tata 454

<210> 442  
 <211> 496  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-H2  
 <400> 442

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 aattcggctc gagaactatt ccttcttcgc caagttctct gagctataga agaaggaggg 120

atttcttcag accgccattg ttgccacact tctctccttt ctatttttcg ccgcatttta 180  
ctcgcttact gacaaaagtc ttctactcaa gtctctctct cgctctcttt ggaggctcaa 240  
ttagggtttt gttgtcgtga gatttgatta cacaaattgc tgaatttggt ttcgattatt 300  
ggtgttattg ttttcgaaga tttccagtga gtttccggtt atggatctga ctggaggatt 360  
tggagctaga tccggcggtg ttggaccgtg cccgggaacc aatangcctt gaatcgctac 420  
atctcgggtga cgaatttcgg caactagtga cgaactttac ctcccagaaa ccccggggggt 480  
tcgttcaagg gctttg 496

<210> 443  
<211> 450  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 443

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gtagtagtgt tttcgtgata gaaaattttc aaagttaatg tgcatacact agctagtga 120  
gaagaagaag actaactaag aatggaagga acttggtttc tccgtggaca acctctcaca 180  
acaataccct ctcttcccag cagaaaaggg tttcttctcc aaagatggaa gaccaatcgg 240  
attgtcaggt tttcaggttt taagaatcac tcggtttctg gaaagtcgag gtctttcgat 300  
cttagcctca gagcttcagg tcccattaga gcaagctctg tagtaacaag aagcaagccc 360  
taccaactta aattccaaag aagaagacct tgtctttgta gccggtgcta ctggtaaagt 420  
tggttctaga actgtgagaa nagctactga 450

<210> 444  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-019-Q1-B1-H6  
<400> 444

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cctccancaa ccgttagtct cgcaganttc tgcgggaana acctttcaaa natcattctg 120  
tnntancaan cttctttant gtttggagtg ttgtgagggg agatatgccc cgcgttcgac 180  
atcatcttgt cattgacatt ttgagcaccg tgatctttca ngccatcgat ccaactgtag 240  
ccaacancat cactgaactg ttcgactgca aaggcattgg agtgggatgc aagctggtcc 300  
aacaatatgg atccatcagg aacagccgct atcggagttc acctttcggg ctacgatggc 360  
aacancgtgg gattggncat accaccactt aangcaantg acaacatgcc gatgatgatg 420  
ggtc 424

<210> 445  
<211> 432  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-019-Q1-B1-H9  
<400> 445

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ctgttgactt gttcaataaa ggtaaagtaa gatcaatccg gcgaatcttc tttcgttttc 120  
cggcaccgat ctcggtggat ctccgattca catggcggcg gataatgctt atctgatgca 180  
gtttgttgac gaaacctctt tttacaaccg aatcgttctg agtcatcttt tgccggcgaa 240  
tctatgggaa cccttacctc attttctcca gacatggctc cgaaattacc tcgccggaac 300  
cctactatac ttcattctccg gtttctctg gtgcttctac atctattacc ttaaaatcaa 360  
cgtttacctt cccaaagatg caattcctac aataaaggct atgcgtttgc aaatgtttgt 420  
gggnaatgaa ag 432

<210> 446  
<211> 353  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-02-Q1-B1-A1  
<400> 446

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aaccgggttc caaacgaaga ttgacgccn gctgaagcta cgaancaagc tctctttgaa 120  
acaacaagca gtgatttgat tattattaca tgtaattttg tcaaggctnt taagaggaga 180  
ttantgggta atgatctggt gcantgaacc ctattttcat atgttaagtg cggttctgta 240  
atgaataaaa tagagaagcg ttgggtttcc tctaattgta acaaaaggat cgttggaagt 300  
atgatagaag tttttcntat aaaaccattt caagaaaaaa aaaaaaaaaa ggg 353

<210> 447  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-02-Q1-B1-A10

<400> 447

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gataaaggag actatggaga gagctttctg ggataatgtc atggaatcca tgaaattgga 120  
gaagccagac tatagctgca tctctaacct tatgaaagaa gtgagtgcgc aactttgcca 180  
gatggtacca gatagctgga aagtagaaat aactgaaact attgatctgg acattctctc 240  
acagttgctc aactccggca ccttggaatc cgattacctt ggaaagatgc ttgagtttgc 300  
gttggtact ctgcggaaac tctctgcccc aactaatgac cgtgagaatg aaagcaacca 360  
acgggattta ctcaanggac ttcacaaggt tgtgttaagc tgaaaatgaa tcc 413

<210> 448  
<211> 417  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-02-Q1-B1-A12

<400> 448

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnntcgcgt gcttttttat tgtccctttt gnnnnnnnnn 240



nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnta ttcattggatt aaccctttca ntccacttcc 360  
 aagtacctat tttactaagg agttggactt cccccttttc cgacaagcaa caaaaaa 417

<210> 449  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-02-Q1-B1-A2  
 <400> 449

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 tcaaggttcg tcttcagctt cacggtgaag caccttccac caccaccgtc actctcctcc 180  
 gtccagctct cgctttcccc aattcttctc ctgcagcttt cctggaaacg acttcttcag 240  
 tccccaaagt aggaccgatc tcaactcgaa tcaacatagt caaatcgaa ggcgccgccg 300  
 cgttattctc aggagtctcc gctacacttc tccgtcagac gttatattcc aacaacaagg 360  
 atgggggtcta tacgaagtgc taaagaacaa aatggactgg attctgaatc aagggaaat 419

<210> 450  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-02-Q1-B1-A6  
 <400> 450

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 tcgaactctg tttgattcca ctgtcgattt aatcatctta cctaattggcc ggaagggctg 120  
 cgacgtcgtc ggcgaaatgg gcgagagagt ttttgttcag aagggtttcg tctaactctc 180  
 ttggagctac ccgtaactgt tcttcggttc ctggagcttc ttctgcaccg aaagtccttc 240  
 atttttccaa gagaggaagg atattgacag gagctaccat tggctctggcc atagctggag 300  
 gagcttatgt tagtactgca gatgaagcaa ccttctgtgg gtggctattc aacgcaacaa 360  
 aggttgtgaa tcctttcttt gctcttctgg gatgctgagt ttgcgcataa gctg 414

<210> 451  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-B1-A9

<400> 451

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ctggtagaca aacaagacag tcagatgagg cttcaaagtc tttcaggaca cctggacgtg 180
tttctactcc aacgggggtca aagctcaaaa gctcgaataa caggcatgaa gatcttttac 240
glatggaacc cgaagaattg atgttgagca cagaagtaat agggcagagg gacagttggg 300
acctatcgga tagagaaagg gatatacgcc aagggtattga tctagctacc actcttgagc 360
gcatagagaa gaatttcgtc atcagtgatc ctcgtctccc tgataatccc ant 413
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<210> 452  
 <211> 162  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABL1-019-Q1-B1-B7

<400> 452

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ctcttcaaat ttttgaaaa ttcaatctat atgttatacc aaaatagctc ctttgtgaag 120
tcctattgaa tctctcgctt ttcaaaaaaa aaaaaaaaaa aa 162
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<210> 453  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-C2

<400> 453

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agtgcaaacc anoooooooooooooooooooooooooooooooooooooooooooooooooooo 60
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nnnnagtttc atggagatca ctaatcgttg gatgtttagg agatccagaa accctaattgg 120  
catcttcaaa gaaacctaaa agaaaaaatg acgtcatcaa gaaacagagc tcttttcaaa 180  
gactatcgat acttgatatg agcaatccaa gttccaacac tttgtcagaa gatctatcga 240  
tttctttggc cggatcagat cttcatgtgt ttaccctagc ggagcttaaa gtcattacac 300  
aaagcttttc atcgaccaat tttctaggtg aaggtgggtt tggctcgtgt cataagggtt 360  
tcattgatga taagctacgt cctgggtctt aaagctcagc ctggtgctgt taaattgctt 420  
gatct 425

<210> 454  
<211> 402  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-019-Q1-B1-C3  
<400> 454

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nnnnagagag aggaaacgat cgaagcttct taatctgata acgattgcta cttcagcatc 120  
tgttgatcgt tcacgatggc ttctgaacag aatcctatgg ctttctcanc atagatgtct 180  
ggctcttgtc cgtaaagctt tgtcttttcg acaacgtttg atcggctctc ttctgacacc 240  
atcttgtttc tcttttacgg tgggtggttg cttgtgtctg gcttccgttg gcttctacag 300  
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<210> 455  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-019-Q1-B1-C4  
<400> 455

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120

nnnnnnnnnn nnnnnnnnnn nnnnccgattc tgagctgcga tgcttctttg attcacttga 180  
 gagtgttttg gagttttgac tacgacttgt gatggcatct agacaaggat caaaatcgag 240  
 aaaagcaggn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360  
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<210> 456  
 <211> 470  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-B6

<400> 456

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 gtccaccagc gaagagaggc cgtcccttcg gtagtacaag nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnt caccgtcagc tttacttggc ccttctcttc 180  
 tagttcaciaa ttccttcgctc gagcagaaca atagaagaat agttcttgcg ttgcagagtg 240  
 gtttgaagag tgaggtgaca tgggcattga acacacttac gttgctttcc ttcaaggaaa 300  
 aagaagatat tcgaagagat gtcatgctc ttgctaagat agctgggctt gcttgatgcc 360  
 cttctcttaa ttatagatga ttggcgtgac atagctctcc caaaggacct gacaagaagg 420  
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<210> 457  
 <211> 400  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-C5

<400> 457

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 tgcagctgat ggaaaacaaa gtggttcag ccattgggtcc acaatcttca gggattgctc 120  
 acatgatctc ctatgtanct aatgagcttc atgtacctct cttgtcattt ggagcaacgg 180

atccgactct ctctctctctg caatttcctt atttctctcg caccacgcag aatgattact 240  
 tccaaatgca tgcgatngca gattttctat catattccgg atgggagaca ngtcattgcg 300  
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 caanaaacgc tcgangatct cttacaaggc tgcaatttac 400

<210> 458  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-C8  
 <400> 458

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 taatggcgtc accaaagtca cccacaagac caacccaaca aaaccacaa cccaatttcc 120  
 acgattttct tcctaccatg gccggaaacc taggcggtga aggtctgatc ggagagctat 180  
 gcaacggctt cgagcttttg atggacagag agaaagggtgt catcacgttc gagagtctcc 240  
 gacgtaacgc tgcggcggtt ctgggttttag gagatttgac tgatgaagat gtccggtgta 300  
 tgattaaaga aggggtgattt tgactgcnac ggtgcgttga atcagatgga gttngtgtgt 360  
 tgatgttttag gcttagccct gatttgatgg aagcgteacg gtgtcccgtc acgggaggtc 420

<210> 459  
 <211> 471  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-C9  
 <400> 459

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 tttctccgct gtttcgtcgg caaattttcc catttttgat tccgaagata atagatatta 120  
 tcaacagagg ataaggataa aaccagaac antcattata atttagtggt gaagttgacc 180  
 aaatttataa actgatccaa ttttaaaatc taagagatat ggagaacatg gacgatttct 240  
 caccggagaa tgttttagca ccaccaccac cacctctcc aatgaagaag tcaacggatc 300

tggttatgca aagaagcaat agctttgttt ctaaagctac nnnnnnnnnn nnnnnnnnnn 360  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 420  
 nnnnnnnnnn naatgtcatc ggaatgggtt cagatgtnat ccgagggatg a 471

<210> 460  
 <211> 381  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-D1  
 <400> 460

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 actgggatcg aaaacgatcg gagctcccga gtactgtcac gogaacttca caaagtattt 120  
 cacaccggcg ttctgggtccg acgagaggtt ctccggagct ttctccggga ggaaaccgtg 180  
 ctacttcaac acgggagtga tggatgatga tctagagaga tggaggcgcg tagggtacac 240  
 ggaggtgata gagaaatgga tggagattca gaagagtgat aaggatttac gagctgggat 300  
 nattgccgcc gttccttggt ggtgttcgcc ggagaagtag ctccgataga gcatcngtgg 360  
 gaaccagcat gggcttggtg g 381

<210> 461  
 <211> 495  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-D4  
 <400> 461

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 atnccgtcca aggncaacaa caanggttc ccnggntaaa aactttccgg ttccgggtgcg 120  
 aactccgttt caacctttca aattcaaag caaantcgaa tctcccgcga aaacgcgatt 180  
 gctctctccg gcgaccgaag aaacatgttg tcagatcgtc aagagcctgg cgtattcggt 240  
 gcttatccga tgatcctggt tcgagtcatg ttttcgttgc aagtagaagg aaaatggtag 300  
 tcttggtgtc gacggtgcag cttctgtctc atatgcttcc gcaaaacggg aacgcagctg 360

agatttatcc ggtgatgcaa aacgaaataa ggaaagtggg gacaaagggc aaggctgctg 420  
 gtgtgcttcg tttagtgttt catgatgctg gaacctttga actggacgat nattctggtg 480  
 gcatcaacgg attct 495

<210> 462  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-D8  
 <400> 462

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 tcatgttaca taaaaacgac atacatgaaa gcacaaataa naaggcttct ctanttctaa 120  
 cagtagttaa atanaaaaat tcntttttcg aaatgtaaag aaatataaaa ctccctgata 180  
 tccacatgat tttcccaaac ccccccaaca aagtacagan aaagaacata gaaaaacnct 240  
 ancggatana tgtgtttana taatcaatcc ttcnnttct ttttntgtt cngcntcgct 300  
 ctgcntgct tccggannat gtatagattc ggcaccgctg ttgtttaacc atttcacana 360  
 agcntccatt cagaaatctc ctttcggaa ggagaagggtg gcgtcaagac gtaacagan 419

<210> 463  
 <211> 372  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-019-Q1-B1-E2  
 <400> 463

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 cttctaattc catctctct ctgtacccat ctctaaaaa tctcaacttt gagtcaaaat 120  
 tttgtcttct ctcaaacc aa tcatagtct taaaaatctc acctttatct caaattttta 180  
 atctttcatc tgatttctga aacccaaatt ctctaattct atctttgagc caaaaagtgt 240  
 caatctttcc tctgatttct gaaacaaaa atctctaatt tcaaaaaaaa aaaatctcac 300  
 ctttgggtca aaaatgtcag tagcttgtgg actagaatgt gtcttctgtg taggattcag 360

tagatgggca tg

372

<210> 464  
<211> 364  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-019-Q1-B1-E7  
  
<400> 464

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gaaaggaaac aaattcccac aatttcttgt cttctcttaa agttcttctt aagttgaagc 120  
ttcttgtctg tttttgagat ttccagtaag aagaaacttc gctaattttc ccgcggaaat 180  
tctcttaciaa tcataaagtt ttcttttttt ttgctctcg agaaagtfff gagaattfff 240  
antcttcaa atggcgtcaa gaganatata aacgatgatt aaacaagggt ttaacgcagg 300  
accattactc nctttttctc cgttaagaan ctcaactccn attaaactcc ccaancgcct 360  
ctca 364

<210> 465  
<211> 408  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-019-Q1-B1-E9  
  
<400> 465

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gatgacctcg ctacttcttc tcagaacgct tccgcttctc cgcaacggat ttctcaacca 120  
tcgtcatcaa gttggtatcg tagctgggtg aattctcagt caccgtcggc gtttgttgtg 180  
ttctcttgct gatagaccac agttttacga gaataatgat tctgtttctc cggaggaggg 240  
atccggcgcg gcggcgatga acgtgacatc gcctgttggt gataatagct ggcgttatga 300  
agattctgat tatcggaat ggaagaatct agaagctgag attcctcgag atattgaanc 360  
tanttctct ctcgctaaaa aaaatcttca atccgataag tatttngg 408

<210> 466



<211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-F1

<400> 466

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 gaatagcaga ccagttgacc tgtcacgaca gtaaaccggcg agttgaggac tgcattgctta 120  
 gcgcattccag ttgtttgtgag tcgaatgcgg gggacagcac gacaatatag tttgttgatg 180  
 cttgttaagt agcattgttc ttctggtgtt cctacagcac agcatcttgt agcagtgcatt 240  
 ccaagtctta tctagccttc gtatttacag ctgtaaatag cctgcaggct gtacggtaca 300  
 ttcacttcac caatgcttaa attttaaagc ccttggtggc ccctggtgat acttcattac 360  
 acaagtgggt ttttaaaagc cagccagccc caaaaaaaaa aaaaaaan 407

<210> 467  
 <211> 514  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-F10

<400> 467

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 gaattcggct cgagtggaaa acaaagagac caagcaagaa ccagcagcag cagctgagca 120  
 aaagaccgtt ccgttgatcg aagatgagat cgagaggagc aaagtcggga tcatgagagc 180  
 tctctgcgac cgacaagatc ctgaaactaa ggagggtgat gatctgatga taaggagggtt 240  
 tctgagagcg cgtgacctgg acattgaaaa ggcttcaacg atgtttctaa attacctgac 300  
 ttggaagaga agcatgctcc caaaggggca cataccagaa gcagagattg caaatgatct 360  
 atcgcataac aagatgtgta tgcaagggtca tgacaagatg ggtcgacctt tcgctgttgc 420  
 cattgggaac agacataacc cttccaaagg caaccctgac gaattcaagc gttttgttgt 480  
 ctacacgctc naaaagattt gtgctaaaat gccn 514

<210> 468

<211> 526  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-022-Q1-B1-E3  
  
 <400> 468

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ctcgnaattc ggctcgagtt cccccgcagc tcgagcttag tctcggcgga ggaggcggcg   120
gctcgtgtta tcagatcccg atgtcgcgtc ctgtctactt tttggacctg atggggatcg   180
gtaacgtagg tcgtggtcag cctcctcctg tgacatcggc gtttagatcg ccggtggtgc   240
atgttcgcac gaagatggct tgtggtgccc aaagcgactc tgattcgtca tcggtcgttg   300
atctcgaagg tgggatggag aagagatctc agctgttaga tctagatctt aatttcctc   360
ctccatcggg nacaagcctg agcttttaac ggtgtcgttt caattcgaaa gcgcaatgcg   420
tttcttcctc ctttttgagc tgtgaaaaat tcgttttctc aatagntttc ctctcctctc   480
tctcccaagt ccaaatttaa taccaagttt ttnagaaagg aaaaaa                    526
  
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<210> 469  
 <211> 436  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 469

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cgtcaccaag gccaaaggcc gtaaaactcac ggctgaggaa ctctggtcag agctcgatgc   120
ttccgcgcgc gacgacttct ggggtttcta ttccacctcc aaactccatc ccaccaacca   180
agttaacgtg aaagaggagg cagtgaagaa ggagcaggca acagagccgg ggaaacggag   240
gaagaggaag aatgtttata gagggatacg taagcgtcca tggggaaaat gggcggtga   300
agattcgaga tcacgaaaag ggtgttagag tttgggcttg gtacgttcaa cacgggcggg   360
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caacttccaa atntgc                                                    436
  
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<210> 470  
 <211> 461  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 470

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 accaaggcca agggccgtaa actcacggct gaggaactct ggtcagagct cgatgcttcc 120  
 gccgccgacg acttctgggg tttctattcc acctccaaac tccatccac caaccaagtt 180  
 aacgtgaaag aggaggcagt gaagaaggag caggcaacag agccggggaa acggaggaag 240  
 aggaagaatg tttatagagg gatacgtaag cgtccatggg gaaaatgggc ggctgagatt 300  
 cgagatccac gaaaagggtg tagagtttgg cttggtacgt tcaacacggc ggaggaaact 360  
 gccatggctt atgatgttgc gggcaaacaa attcgtgggg ataaanccaa actcaacttt 420  
 ccaaatttgn aacatcctcc tcctcccaaa tttaaaccnc c 461

<210> 471  
 <211> 369  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-023-Q1-B1-D4  
  
 <400> 471

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 gcaacagagc cggggaaacg gaggaagagg aagaatgttt atagagggat acgtaagcgt 120  
 ccatggggaa aatgggcggc tgagattcga gatccacgaa aaggtgtag agtttggtt 180  
 ggtacgttca acacggcgga ggaagctgcc atggcttatg atgttcggc caagcagatc 240  
 cgtggtgata aagccaagnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
 nnnnnnnnnn nnnnnnnngc acaatcaacc gattagctc cggcnaaaaa ggtctgcntt 360  
 gtccctcaa 369

<210> 472

<211> 440  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-025-Q1-B1-F8

<400> 472

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gagcaacaaa cagagaaaat gtgtggcggg gctattattht ccgattatgc ccctctcgtc 60
accaaggcca agggccgtaa actcacggct gaggaactct ggfcagagct cpatgcttcc 120
gccgccgacg acttctgggg tttctattcc acctccaaac tccatccac caaccaagtt 180
aacgtgaaag aggaggcagt gaagaaggag caggcaacag agccggggaa acggaggaag 240
aggaagaatg tttatagagg gatacgtaag cgtccatggg gaaaatgggc ggctgagatt 300
cgagatccac gaaaagggtg tagagtttgg cttggtacgt tcaacacggc ggaagaagct 360
gccatggctt atgatgttgc ggccaagcaa attcgtggty ataaagncaa nctcaacttc 420
caaattctgc accatcctcc 440
```

<210> 473  
 <211> 510  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-030-Q1-B1-G2

<400> 473

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tntgagccct ctgaatttat gcnacactat agggcaccta tgacgttnaa ancancctt 60
acttaacctc ggaattcggc tcgagcacag caacaaacag agaaaatgtg tggcgggtgct 120
attatttccg attatgcccc tctcgtcacc aaggccaagg gccgtaaaact cacggctgag 180
gaactctggt cagagctcga tgcttccgcc gccgacgact tctggggttt ctattccacc 240
tccaaactcc atcccaccaa ccaagttaac gtgaaagagg aggcagtga gaaggagcag 300
gcaacagagc cggggaaacg gaggaagagg aagaatgttt atagagggat acgtaagcgt 360
ccatggggaa aatgggcggc tgagattcga gatccacgaa aaggtgttag agtttggctt 420
ggtacgttca acacggcgga ggaagctgcc atggcttatg atgttgcggc caagcagatt 480
cgtggtgata aagccaagct caacttccca 510
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<210> 474  
 <211> 433  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-037-Q1-E1-G8  
  
 <400> 474

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tttttttttt tttttttaca taatcataat aaaattgcat tatagatgaa gaaactgaag   60
ctacaaatta cataagacaa aagaaaaaaa gattacataa aatgaaaact gtggcatggg   120
cgagcctgac aaaaaaccgc aagctggacc gacacagaga gactaataca aaccataata   180
caaatattaa catacgaaat ttaacactaa tccatattta attaattact cttgggccag   240
tcatgcaatt tcacaaaaac tccattgcaa ggggtgaat ttcctathtt gccctaagc   300
tagaatcgaa tccaatcga tctcgtaga cggatacttc tccaacgaga acgtctcggt   360
ccactgcggg cggctcctcc gggtcagcga acgtcaagtc cgacnacggc gaaagattca   420
agcgggtggga ctc                                                    433
  
```

<210> 475  
 <211> 399  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-041-Q1-E1-H7  
  
 <400> 475

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cattatgaca aatgttaaag gagttttggg gcatnnnnnn nnnnnnnnnn nnnnnnnnnn   120
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnng cctctactta   180
acttcatcac aactaccctc aagatagagg ctcatggctt ctgcaatgc aaacaggaac   240
tctgnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnntt   300
ttggagggtg ataaacgaac gatgcgggaa actcaciaac atgcagcctt atttacatga   360
aactgggatc tcttcagaag actcctccaa tcatggaat                                399
  
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<210> 476

<211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-08-Q1-B1-B2  
  
 <400> 476  
  
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 ccgccgccga cgacttctgg ggtttctatt ccacctccaa actccatccc accaaccaag 180  
 ttaacgtgaa agaggaggca gtgaagaagg agcaggcaac agagccgggg aaacggagga 240  
 agaggaagaa tgtttataga gggatacgta agcgtccatg gggaaaatgg gcgggctgag 300  
 attccgagat tcacgaaaag gtgttaaaat ttggcttggt acttcaacac ggccgggagga 360  
 aactgccatg gcttatgatg ttncggcaa acaaattcgt ggtgataaag ccaa 414

<210> 477  
 <211> 348  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: ARABL1-08-Q1-B1-E7  
  
 <400> 477  
  
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 gaaatgggga cgagtttcag aacctgagtt acggatttga gccggattat gatctgaaac 120  
 agcagatatc gagcttgga tcgttccttg agctggacgg taacacggcg gagcaaccga 180  
 gtcagcttga tgagtccgtt tccgaggtgg atatgtggat gcttgatgat gtcatttgcg 240  
 tcgtatgagt aaaagaaaaa aaaataagtt taaaaaaaag ttaataaag tcctgtaata 300  
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<210> 478  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-01-Q1-B2-A2

<400> 478

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gcatgtagct tggctaagca tcgtaaata tctgtattgg agcccaagga tatattactc 180  
cacctagaga aaaacttgca cttgacaatt cctggattct caagtgagga taaacgtcaa 240  
acaaaaactg taccaactga tctccacaag aagcgacttg caatggtgcg tgcattacta 300  
agaatcctca aaaccagaga cgaatgcaag caattccaag ggaaactatg anacaagcga 360  
tggatgaancc aaatgggtccc gaatcatctc ttaagaccct cc 402

<210> 479

<211> 419

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-01-Q1-E1-G4

<400> 479

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agacaagaag agaaggagaa agacaaagta cttgggggagc agtaattata ataacatcga 120  
catcaacaga ttacaacgca agtctttctt cattaaccga gcttggcaag aacattgttc 180  
aaactcgaga cagtttctga gtaatacttc tcagcatctg ggctactctt tgatctcgcc 240  
gcatantcca agttgtcaat ggtttggaag agctttgagg tgagatcttt aaggctttgc 300  
ttctcttctt taggcttaac ggagataacn gtgttgagat ngtaacggag gtacgatgcc 360  
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<210> 480

<211> 437

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-05-Q1-B1-A5

<400> 480

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cagcgcgatt tgctggtgac ccaatgacgac cagatgctcc acgcccagtc gcgtagcgtc 180  
ttcatgggag aaaataatac tgttgatggg tgtctggtca gagacatcaa gaaataacgc 240  
cggaacatta gtgcaggcag cttccacagc aatggcatcc tggatcatcca gcggatagtt 300  
aatgatcagc ccaactgaccc gttgcgcgag aagattgtgc accgcccgtt tacagggttt 360  
cgacgccgct tcgttctaac atccgacacc aacaacgctg gcaccaatt tgatnggcgc 420  
cgaagantta atccgcc 437

<210> 481  
<211> 526  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-01-Q1-B1-B4  
<400> 481

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ctcgggaattc ggctcgaggg tattttgata aactggcaan ttccangnc acaaattgag 120  
gctgtgacca atgacaactt gattatcaat gtatacaaca ctttgacna acctttcctc 180  
ttatcttga atggagtgtc gcagaggaga aactcgtggc aggatggagt gtatggtacc 240  
aattgtccaa ttctaccaag ggcataactt cacttatgtt cttcaagtga aggatcagat 300  
atgtagctag ttctactacc cttcncttgc ttttcacaag gcagcangga ngttatggtg 360  
gattcaaaat tgctaagcgn cccggggaat ccgagtgcct tttcctacgc ccagcaggag 420  
atttcacata ttgncaggaa aactgggtac aangagaaaa tcacncagga ttttaagggc 480  
catttttggg atgntgnaat tgacctttcc cttccctnaa ggggaa 526

<210> 482  
<211> 405  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-040-Q1-E1-B10  
<400> 482



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 cacanaagga gaacagatta caataatgat gtaagaaaga tatataggte ntaggttcnc 180  
 ttganagggt caaagttgga nacnccgacg acgacaccaa tgatgacagt gaggacnagg 240  
 ccaccanaan caatgctgag caanaaattc ttgagggaag gagaaattcc anaaccaagc 300  
 agcttcagct atctccggaa tcaccatcga agcagtaaga agcagccgag ggaaataccg 360  
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<210> 483  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-040-Q1-E1-D8  
 <400> 483

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 acagaaggag aacagattac aataatgatg taagaaagat atataggtct taggttctct 120  
 tgacaggggc aaagttggag acgccgacga cgacaccaat gatgacagtg aggacgaggc 180  
 caccagaagc aatgctgagc aagaaattct tgagggaagg agagattcca gaaccagcag 240  
 cttcagctat ctccggaatc accatcgaag cagtaagagc agccgaggag ataccgggtca 300  
 aagccttgct catccttgaa gggccttaac ttgaaacctc ctggtgctcc tgctccaag 360  
 tttgcaaacc aaaagccctt gggatggntt tcagaaggta atgggcttaa aggaaaagga 420  
 gaacgaaacg gggctctggg ttnaagttgg tgttgaccaa atgacaa 467

<210> 484  
 <211> 396  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-041-Q1-E1-D10  
 <400> 484

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 acagattaca ataatgatgt aagaaagata tataggtctt aggttctctt gacaggggtca 120

aagttggaga cgccgacgac gacaccaatg atgacagtga ggacgaggcc accagaagca 180  
atgctgagca agaaattctt gagggaagga gagattccag aaccagcagc ttcagctatc 240  
tccggaatca ccatcgaagc agtaagagca gccgcggaga taccgggtcaa agccttgtcc 300  
atcttgaggg ccttaacttg aagcctctgt gctctgcctc cagttgcaac caaagccttg 360  
gatggtttca gaggtaatgg cttaaggaaa ggagac 396

<210> 485  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-G10

<400> 485

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tcgaatcaat gagaaatcag gtggaggaag agacggagac ggagagagag gaagtacagt 120  
gtagtgaatg ggaggatcac gatcattaca gcaccacgag ctctctggac gcagcggagg 180  
aagaggaaga agatgatgat agagaatcaa tttccgaggt cgggacacgc tccgagtttg 240  
gatctacggt gagaagtaat tcgatgagac ggcacatca acaaccttca ccaatgccgc 300  
aagtatacgg cggcgctgaa caaagtaa atgataaagc agatgatgct acgatatctt 360  
ctggtancta tagangcgga ggagatatcg ctgacatgaa gatngtaatt t 411

<210> 486  
<211> 398  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-041-Q1-E1-E8

<400> 486

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nnnnnnnanc caaaagttca ttgctgcaac attgaaacga atacacagaa ggagaacaga 120  
ttacaataat gatgtaagaa agatatatag gtcttaggtt cncttgacag ggtcaaagtt 180  
ggagacgccg acgacgacac caatgatgac agtgaggacg aggccaccan aagcaatgct 240

gagcaagaaa ttcttgaggg aaggagagat tccagaacca gcagcttcag ctatctccgg 300  
aatcaccatc gaagcagtaa gagcagccgc ggagataccg gtcaaagcct tgtccatctt 360  
gangggcctt aacttgaanc ctctgtgctc ctgcctcc 398

<210> 487  
<211> 400  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABL1-041-Q1-E1-G1  
<400> 487

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ctgtttcaac aagaccaagt tctgaacaat tactcagcta gtagttttat catgcattca 120  
aaatcttctc ataagcagaa aaacgtcata gatatcaaaa ctactaaagc aaaacatctg 180  
cgaacggatg aatgattcgt gagatctcaa tctcacttct tcctgaaaga gcatccctct 240  
tgtagcctcg ctttaccacc ggtgggctgg cacagaactg tctgacagtt tccacatacc 300  
acaacagttt gagaatggct gaacacagtg gttatgttga agcatccctg acacttaaca 360  
tccatgaaga aggagttggg agattgcacg agacgcttga 400

<210> 488  
<211> 395  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-18-Q1-B1-G11  
<400> 488

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gatgaacaga tccaagagtt ttacgaagcc ttctgtctca tagacaaaga ttccgatggg 120  
ttcatcacga aggagaagct aacgaaagtg atgaagtcga tggggaagaa tccaaaggcg 180  
gaacaactgc aacagatgat gagcgaatgt gacatctttg gcaacgggtg catcactttt 240  
gatgatttct tgtatattat ggctcaaaac acttctcagg aatcagcatc ggatgagtta 300  
attgaggtat tcagagtgtt cgacagagac ggagatggtc tcatatctca acttgagttg 360

ggaaaaagga atgaaggnca tggggataag ataac

395

<210> 489  
<211> 423  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-019-Q1-B1-G4  
  
<400> 489

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atcaatatgt ctacatggcg aagctcgccg agcaagccga gcgttacgaa gagatggttc 120  
aattcatgga acagctcgta agtggagcta caccggccgg tgagctgacc gtagaagaga 180  
ggaatcttct ctcggtcgcg tataagaacg tgattggatc tcttcgtgcg gcatggagaa 240  
tcgtgtcttc gattgagcaa aaggaagaga gcaggaagaa cgaagaacac gtgtcgcttg 300  
ttaaggatta cagatctaaa gttgagactg agctttcttc gatctgttct gggattctca 360  
ggttacttga ttcgcatcta attccttcag ctactgccan tgagtctaan gttttttacc 420  
tga 423

<210> 490  
<211> 482  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-01-Q1-E1-C10  
  
<400> 490

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cgcccgccct nttttttttt tttttactca tacgacgcaa tgacatcatc aagcatccac 120  
atatccacct cggaacgga ctcatcaagc tgactcggtt gctccgcggt gttaccgtcc 180  
agggcaagga acgattccaa gctcgatata tgctgtttca gatcataatc cggctcaaata 240  
ccgtaactca ggttctgaaa ctcggtcccca tttccaaatc ctatacactc caccgggaaa 300  
ctcggctgac ttaactcgct ctactctga gagacaacgc agaccttctt cgccggaggc 360  
tgatcggttg atcgtggcga tgacggngga ggagtataat taggaggang aggatggtgc 420

aaatctggga agttgagctt ggctttatca canggnnttg cttgggcgca anatcataag 480  
cc 482

<210> 491  
<211> 423  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-18-Q1-B1-E4  
  
<400> 491

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naccggcagt gtcccacccg taatcacccg ggaactctcc agtgaggtag ctccggaggct 180  
caccgganaa tggncccaag tacttgacta ggaacggagt gaaattcgga taancggttt 240  
ggttcaangc tggttcacia atcttcancg acggangatt ggnctacttg ggcaacccccg 300  
aagcttggtc cangctcann agcatcttaa ccatttgggc tacncaagtn tacctcaagg 360  
gganctgttn aggggctaca aangtcccc ggganatggt ccaatnggga aaaagcaaaa 420  
ggg 423

<210> 492  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-18-Q1-B1-E8  
  
<400> 492

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tcgatgccat cttcaaaat gaccttcag cttttcttgg tttggtggaa gcgagagaat 180  
cttccttga ggagagaagc gaggaacaga acaccaacaa cacggttttg cacgtagctg 240  
caaagctcgg tcaccgagaa ntggctcgca agattattga gctccgacct tcccttctct 300  
cttcccgtaa cgcgtacgga gacacacctt tgcaacttgc tgctcttctt ggagacgtaa 360

acatagttat gcaaatgtna agacactgga ttggaactat attccgcacg 410

<210> 493  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-18-Q1-B1-F1

<400> 493

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caaaattgga gaaaccaaca ggcaagaaac agacagcgac ggttggttggtt ggagtgttgg 120  
cgggtgggatg gctggcgata gagctcgtgt ttaagccatt gttcaagaag ctgagctcct 180  
ccaaggacaa atccgattcc gacgatgcca ccgtccctcc cccgtcgggc gcctgaatat 240  
ggtgagtgag aatttaacaa agcctctgcy ggagacacgt gtgttgaagc tcattttatt 300  
agcaaactct ggtgtttcct tttgtaataa ccgttccgga cttttacgta ctgctttgat 360  
gatgtccctt ttttaaatta accccccctt tnaaattaaa atcccacaaa ggntaataa 419

<210> 494  
<211> 409  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-18-Q1-B1-F11

<400> 494

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gatgacgtct gacggagcaa cgtcgacgtc agctgcagct gcagcagcag cgatggcgac 180  
gaggaggaaa ccgtcgtgga gagagaggga gaacaatcgg agaagagagc ggaggagaa 240  
agctgttgcy gcgaagattt atactggtct tagagctcaa ggtaactaca atcttccaaa 300  
acattgtgac aacaatgagg ttcttaaggc tccttgttct gaagctggtt ggggtgttga 360  
acaagacggg actacttatc gcaagggaca caagcctcta cctggtgac 409

<210> 495  
<211> 388

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 495  
  
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 tcttccgacg ataaagatta gaagacatga anaacggtaa ccggaaaaca acgccggaaa 180  
 caganaagtc tcaccggaga aagttatcag agaaagcgat gtcgtttcac ggagaggaa 240  
 caacgccgtt atcaaatcca ggcgaagctt cgaagaccga aaacggtacc ggagttattc 300  
 tccaccggtc aaaagcatca ccgtnccgga gacggtttca cttccgccac gtttgacgaa 360  
 acttttactt aacgtgacgg tacaanga 388

<210> 496  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-18-Q1-B1-G1  
  
 <400> 496  
  
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 nanaaaaatna nttgctttgg gtgttggtgn gaggatgatg atatgcataa aactgctgat 120  
 tanggaggtc gtcataacca agccaaacac tttcctccan gaaatgatgc aaggcaccac 180  
 caagcctctg aaactgcaca gaagggtcct ccagttgtga agttgcagcc tattgaagta 240  
 cctattatcc cttttagtga actcaaagaa acaactgatg attttggatc gaattctctc 300  
 atcgggtgaag gctcttatgg aagagtatac tacggggtat taaacaatga tctgccttca 360  
 gcgattaaaa agttggattc taacaaacag ncctgacaat gaaatccntg ctcaggt 417

<210> 497  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations

<223> Clone ID: ARABL1-18-Q1-B1-G5

<400> 497

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gaggtcgtca taaccaagcc aaacactttc ctccaggaaa tgatgcaagg caccaccaag 180  
cctctgaaac tgcacagaag ggtcctccag ttgtgaagtt gcagcctatt gaagtaccta 240  
ttatcccttt tagtgaactc aaagaancaa ctgatgattt tggatcgaat tctctcatcg 300  
gtgaaggctc ttatggaaag agtatactac ggggtattaa aacaatgac tgccttcaag 360  
cgattaaaaa gttggattct aacaaacagn ctgacaatga attccttgct cangt 415

<210> 498

<211> 418

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-18-Q1-B1-G6

<400> 498

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cttgctacaa aggctgcacg taagtctgca ccaaccactg gaggagtcaa gaagcccat 180  
cgttaccgtc caggaactgt tgcactacgt gaaattcgta agtaccagan gattaccgan 240  
ttgctgatna ngaagctccc ttccaaaag ntaattcgtg aaaantgncc aagatttcaa 300  
gactgacttg cgtttccaaa nccaatgctg ttgccttgna ctccaaggan ggctgctgaa 360  
agcaaaaccn tgtgggtcnc cnttgaggga aactaacctc tgggccatcc aagccaaa 418

<210> 499

<211> 412

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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<400> 499



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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnntgttcga gtcctgcgg 180  
 cgaagaaacc gagtccggaa taccattttt ggcagcagaa ctggtttata ggtctgctat 240  
 tcgtgatggc tttaggattc ttctgtctcg ctatcttcct ttacctaagt ctcgatcctg 300  
 attccggtta cacgtctgcc tccgccgtg cttctggtaa agaagggtgc gagattactt 360  
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<210> 500  
 <211> 426  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-18-Q1-B1-G8  
 <400> 500

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 agcagctata tgagacgggt gcagcagaca taaggtcacc tcacggctcc atggacgcta 180  
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 caagccngan gttgatgggg gatgtctccg gggaaggagt aacngcgccg ggacacacat 300  
 aagggaatcc aaggaccgct caacntaaac tccaagctaa aaggaaatta antaaccggc 360  
 gcaacntttg agcccttgcg tccaancgca tccgctccgg cttttcaatt ttcccttcaa 420  
 cngggg 426

<210> 501  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-18-Q1-B1-G9  
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cctggaagaa caccgaccag tgcaacacct tctggaagga cacctgctct gaagaagcca 180  
aaggcaaacg aaccaaataa aagagatatg acgtatgagg agaagcagaa gcttagtggc 240  
catttgcaga acttgctctc agataaacta gatgcaattg taaaaatcgt taacaagagg 300  
aatactgctg tgaagctacg ggatgaagaa attgaagttg atattgatag tgttgattca 360  
gagaacctgt ggganttgga caaatttgta ncaactataa aaagggct 408

<210> 502  
<211> 433  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-18-Q1-B1-H2

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acggaggatt ggactacttg ggcaaccgga gcttgggtcca cgctcagagc atcttagcca 180  
tttgggctac tcaagttatc ctcatgggag ctggtgaggg gctacagagt cncgggagat 240  
gggtccattg ggagaagcan aggacttgct ttaccaggt gggagcttcc acccattggg 300  
cctcnctact gacccggaag ctttcgcgga gttnaaaggt gaaagaactc aaagaacggg 360  
aaaggttggc taatgttccc caangttttg ggattccttc cttcaaggcc aattgtnaac 420  
cgggaaaagg gga 433

<210> 503  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-18-Q1-B1-H7

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tctcatcgcc gagctaagcc aacaagcggc caacgaccgg aaaggcgaga ctctacanca 180  
ggacgaacan gccaaagctga ttacgtcggg agtacaggat cagacaacca aacctatcgc 240  
cggagaagga ctcaaacctg tcagaactga cggaggatg gagaggagtc gattcaacgg 300  
aggangagcc atccgccacc atcgaaacac anggagagtg tctccggcgg tggacccgcc 360  
gtcgccgaaa ctgtcggcgt ttgggtgctg ctctgccttc gggaaaaaac aacc 414

<210> 504  
<211> 392  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABLI-04-Q1-B1-A9

<400> 504

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gatcttaatg ggaaacatct gtcttggtc tggatcttcc actgttaacc acgaacctgt 180  
ctccacaaa cccctcccag tgagacgtgt gcagaccca gagaataaaa agtttctctc 240  
gccgctggtg gcgatgccgg cgttacatcc cacgtttcca ctgccgaaa caggacataa 300  
actgagaccc gccgctaccc cgctcgtga aaaaccgcaa cataggacga cgagattcgt 360  
cgagaaccac tcgtgaaaaa acgcaggaga aa 392

<210> 505  
<211> 445  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABLI-04-Q1-B1-B9

<400> 505

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ctctcttatt aggttcagtt cnntttcgat tcttcgtgtg gatcgctgtc ggtagatttc 180  
cgatttcntt aggttctgcn cgaaatcgtg gtttaagtgt ttattatcat ngattcagaa 240  
aacggtgggt aaacttgtag cggaagatga ngcggtgccc ggtggtnnac cggcggcgag 300

gtagaangag attgtcgaag ttgggatatg gtttctcctt ggntctttcn ctgncnctgg 360  
 tttaantttct cgtcatcggt caagcattnt caccatnaag aaggattcng ccccaagntt 420  
 tttacttgag gagaggacac tngga 445

<210> 506  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-04-Q1-B1-C12  
 <400> 506

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 atcattcctg ttaagaccaa gcttgttgac ccgaagactg gtgatgagaa acccattaca 180  
 gtttctgttg atgatggat ccgaccaacc acaactcttg cttctcttgg gaagctgaag 240  
 ccagtgttta agaaggatgg caccactact gctggaaatt ccagccaagt aagtgatgg 300  
 gcaggagcgg ttctcctaata gaagagaagt gttgcaatgc aaaaaggact tcccgttctt 360  
 ggtgtattca aggacatttg cctgcaattg gtgtttgacc cctgcaatca atgggggatn 420

<210> 507  
 <211> 400  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-04-Q1-B1-D12  
 <400> 507

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 actgtttttg ggtctgcttc aattgcagtg gaagagatgg tgttcttgag ttggggccgt 180  
 ccatcttccg agcaacagca acaagtcac aacaaaacag gaaccttcaa ttatgacaac 240  
 aagtacagag gagtttcgtc taggtctatt gctaaactta aggaagattc agagattgat 300  
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atgaagaang gnaaaaaaagc tcctccaana attgggaagc 400

<210> 508  
<211> 454  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-04-Q1-B1-E10  
  
<400> 508

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gatttgcaat tcgatcttct atgccttcat tttgtggagc taatctgtgc tgggaactgc 120  
accgaagctc tcaaatttgg taagacaaga ttggctcctt ttgggaaggt caaaaaatat 180  
gtagaaaagc ttgaagacgt aatggcattg ctcgcttatg aagaccctga gaaatcccca 240  
atgttccatc ttttgagctc tgaataccgc caacaagttg ctgataatct gaaccgcaca 300  
attcttgaac acacaaacca cccgagctac acaccaatgg aaaggatcat acaacaggtg 360  
acagttgtga gacaatactt gactgaggag aatggcaaag atgcgtttcc cccaatcctc 420  
tccgaaagga tcccccaaaa gggntaaaat tgca 454

<210> 509  
<211> 398  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-04-Q1-B1-E9  
  
<400> 509

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aatttgcctt catttccctc tgattagatc cttaccccg acaaagacac caaaattctt 120  
gagggcgaga gagctgattg atgtctttgg tatctggagc cagggacatg gggttnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnggatg gagatgatga gaactcctcc tccagaacaa 240  
gagccgacga cgatgctctt agtcgacaag atgagcgaat ctctcttttg tgctaccgag 300  
gaggaagaag acgacgattc caaattgcaa ttgggtcctc agtacactat caaagaacat 360  
ctccgagaaa gncaaaggat gatnagaatt ccgaagga 398

<210> 510  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-04-Q1-B1-H11

<400> 510

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tgtgtgaaag gtgaaaagct tatctcccaa gactgcaaga aagtcaaggc aaccactaac 120
gtatggcttc aagttgaagg tcaacagttt gaccctaacg cctctaagct tgccttcgag 180
cgtgtcttta aaggcatggt cggcattgacc actgaccctg ccgctgtcca agagctcgaa 240
ggtaagctcc agaaagtctt ggatgtctac gaggctaggg tcgccaaatc tgagttcttg 300
gctggtgatt ccttcactct tgctgatctt caacacctcc cagccatcca ttacttggtg 360
ggtactgact ccaaagtgct cctttgactc ccgccctaaa ggtaaccgaa ttggattaaa 420
aaaa 424
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<210> 511  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-06-Q1-B1-A12

<400> 511

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tcgagtccta atgtacttaa gttagaaggg ttgatcactg cctctgtttc atcttctctg 60
tacttggttt ttgagtatat ggatcatgat ctcgncggac ttgcttccat acctgggtac 120
aagttttcag agcctcaggt taaatgttat atgcaacaac ttctaagcgg gcttcatcat 180
tgtcacagtc gtggtgttct gcacgtgat ataaagggt ctaatctact gattgatagt 240
aatggagtct tgaanattgc anattttggg ttagcaacgt ttttcgattc acagaactgc 300
gttccattaa ctagccgtgt tgtgaccctt ggtatcgacc ccagagctt ctacttggga 360
gccttgatcat taagggtgtg ggggtgattt gtggagcaca aggctgtaac cttaa 415
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<210> 512  
 <211> 431  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-06-Q1-B1-A9

<400> 512

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tctctgtact aactcttgcc ccattggctt tctccgagat cttcttagag gagcatttcg 120
aaggtggatg gaaaagtagg tgggtcttgt ctgattggaa aagaaacgaa ggcaaagctg 180
gaacctttta gcacactgcc ggtaaattggc ccggcgatcc tgacaataaa ggtattcaga 240
cttataatga tgccaagcat tatgcgattt ctgcaaagat tcctgagttt agcaacaaaa 300
accggactcn tgttgtccaa gtactcaatc aaagaattga acaagacaat tgaangtggg 360
tggtgcntan attaaacccc ctggtctggc nangttaacc agaagcaatt ttgggggggn 420
gataccccat a 431
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<210> 513  
 <211> 487  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-06-Q1-B1-C11

<400> 513

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aaatccttag cagccagat gagatnnaag tcnggccnac ncgtacgtac antcngaatt 60
cggctcgagg ttaatatgtc taaagagaaa tcatatgtaa ttgctcttct tctatctttg 120
cttctctgtc tttcttttca agttggtgtc tctgaggna actacaacgc agttactaca 180
aggtactcgg attctcctcg atgcgccaat ggatcttctg caagtccacc aacaagacac 240
tgtccaaggg ggcgtccccg tcctcctaca ccgagagtag cgggtgcactc taactcaacc 300
aaaggaaaag gcccataagt gatgaaatta ttttatgtct caacactatg atttttgtat 360
ttaagtttga tgtaaaattt acagggcaaa gagattcaat ctttgtaa at cagatgatta 420
cattnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnngggcg 480
gccgccc 487
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<210> 514  
 <211> 465  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-06-Q1-B1-D10

<400> 514

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ccagaagagn gggaagtcgn gnccacncgt acgtaaantc ggaattcggc tcgaggtcgc 60
gtacaatggg ttctgcattc gatccccctg tcacggccac tgaggatctc gccgccgtca 120
actcggcgcc gccactctca aacctcacgc aagaagaact caagaaaatc gccgcttata 180
aagccgtcga attcgtcgaa tctggaatgg ttatcgggtct cggcactggc tccaccgcga 240
aacacgccgt ggctcgtatc agcgagcttc tccgagaagg aaaactcaag gatataatcg 300
gaatccctac ttcaaccaca acgcatgagc aagcgggtgc tctanggata ccattatccg 360
atntagattc gcatccggtg gtggatctat caatcgatgg cgccgacgaa gtcgatcggc 420
tcttaatctg gtgaaaggac nccgcggatt gttantgaaa aaaaa 465
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<210> 515  
 <211> 481  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-06-Q1-B1-D12

<400> 515

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aattcggctc gagcaaagtc tcattttctcg ttaatttcca ttttcgttat ctctctctct 120
cgccgatcaa accctaggtg tatcaattcg ttcagattcc cggcggttgg tctcactgtc 180
atgtaggttt gattcatctt ctcttctgga tcttgagtga cgaagagaga agagatctga 240
gtttttctga gagagagatt tttctccctc gttgaccga tcagtttttt ttcgtcgtcg 300
gggattttca aatttttttt gagggatcgg ttttgatttg ttacgtagat ggccgattct 360
tcacccgatt cgtgtttcaa aggaggcaaa tttagtgtc caaggtttcg atttcatcca 420
actgatgaag agcttgtgat gtattaattg aagaggaaga tttgtaggaa gaggcttaga 480
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<210> 516  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-06-Q1-B1-D9  
  
 <400> 516

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 actccgatag aatcgaaacta cagggttgc accattcctt atcgattccc ttctgataat 120  
 cctagaaagg ctactccac tgagatctcc tggatcgatc tcttctccaa ttccatccct 180  
 tctttcaagg aacgtgcaga gagcgatata accgttccag atgctcctgt tcgagctgaa 240  
 aagtttgcca aaaggtatgc ggagattctt gaggacctga agaaagattc ggagagccat 300  
 ggtggtccac cggattgcat tcttctctgc agaattcgtg aagctgatac taaagagaat 360  
 tgggatttaa ggacatatat aagaaagtta anggatgagg agaatgcaaa ggnaatttc 420  
 acta 424

<210> 517  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-06-Q1-B1-E9  
  
 <400> 517

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 ccagcgggta ctccgaagac cgtccttcta ggtagacctt cggatccagt attctttaag 120  
 agtaaactcg attacgtcaa aaagccaatc cccaaagaag gactggagaa gatttggaag 180  
 acaatgttga aattcaacaa tattgtgtgg ctgcacttca acccttacgg tggaatgatg 240  
 gatcggattc cgtcaaacgc cacagcgttt cctcaccgga aaggaaactt gttcaagggt 300  
 caatacnata ccacatggtt ggacccaaac gccacagaga gtaacctgag tattatgaag 360  
 gagctcctac gangtttcaa naaccgtacg tgtcaagtaa cccgaaaaaa ggccttcntt 420

aa

422

<210> 518  
<211> 430  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-06-Q1-B1-F11  
  
<400> 518

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atcgcagcca tggcggaaaa agctgtcact atcaggacca gaaacttcat gaccaacagg 120  
cttctcgcca gaaagcaatt cgttattgat gttcttcate ctggaagagc caatgtttca 180  
aaggctgagc ttaaggagaa attggcgang atgtatgagg ttaaggaccc aaatgctatc 240  
ttctgtttca agttcaaaac tcactttgga ggggtggtaaa tcctcctgga tatggnttga 300  
tcaatgatac tgggtcaagaa cgcctaagaa attttgagnc caannttaan acttatcaag 360  
ggattgggnt tgacaacaaa gattnggaaa tccaagggaa ccagnttaan ggggaaggga 420  
anaacaaggc 430

<210> 519  
<211> 430  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-06-Q1-B1-F12  
  
<400> 519

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ctaagcaaac agctcgtaag tctactggag gaaaggntcc taggaagcag cttgctacaa 120  
aggctgcacg taagtctgca ccaaccactg gaggagtcaa gaagcccat cgttaccgtc 180  
cangaactgt tgcactacgt gaaattcgta agtaccaaga agagtaccg agttgctgat 240  
caggaagctc cctttccaaa ggntagttcg tgagattgcc caagatttca agactgactt 300  
gcgtttccaa anccatgctg tgcttgact ccaagaagct gctgaaacat aacttgtggg 360  
tcccccttng agggacacta anctctgngc caatccatgc caaagcgtgt ngaccaataa 420

tgccccaaaag

430

<210> 520  
<211> 443  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-06-Q1-B1-G10  
  
<400> 520

ncgtacgtaa aatcggaatt cggctcgagg atatTTTTTca gaacaatttc antnctanna 60  
tctnagaant cacancancn cngtcncatg atcatattag caggaggacc aaacacacnn 120  
gactcaatct tctcatttct cactccctcc tccgtagaat ccgccacaac atcattcaac 180  
actcacaatc ctccgccacc gccgcagctc gggtcctccg tctatctccg ccaacgagat 240  
atcatcgaga agttccacct tcagaacaga gcaatctcca ctctcatcc tcctctgttt 300  
tcctcaacgt acgatnatca tcaaacttcc gagctaattgc tccaagcggn ggccgggtct 360  
ccanccgccg cnttcgccgc tgcgttagcg gctgggangg tgacgaaaaa gaaganactt 420  
tacagtggat gaggcataag aca 443

<210> 521  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABLI-06-Q1-B1-G11  
  
<400> 521

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ttggtttctt aggggttcta cagtatctcc cggaacgaca acgtttgact ccgtcggagt 120  
tcgatgagag ctccggcgag gaagagttac atattccggc gtttgtgaac cgtgttcccg 180  
ccaaggttct gccgccaggt gtgttcgata aactctctta cgggtctctg gtcaaaatcg 240  
gcgagcgatt acatgaagcc aagggtatTT tggttaattc atttaccCAA gtggagcctt 300  
atgctgctga acatttttct caaggacgaa gattaccctc acgtgtatcc tgttggggcc 360  
ggttctcaac ttaacggggc cgtacaaatc cgggtctaac ttcggcccaa tataaaagag 420

a

421

<210> 522  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-06-Q1-B1-H10  
  
<400> 522

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ttatgagcct cttgcgataa gacgcgcctt tgaaaacgct gtgattaagc ggttgatgac 120  
tgatgttcca tttggagttt tgctctctgg tgggtcttgat tcttcccttg ttgcctccat 180  
cactgcacgt cacttggccg gtactaaggc ggctaagcaa tggggtcctc agctccattc 240  
cttttgcggt ggtcttgagg gctcaccgga cttgaaggca aggaaagagg tggcggaata 300  
tttggggacg gtgcaccacg agttccactt ctcggtgcaa gacgggattg atgcataga 360  
ngatgtgatt tancaagttg agacctatga tgtgacgact atcaaagcga gcacaccg 418

<210> 523  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-09-Q1-B1-A1  
  
<400> 523

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aacagaagct gcagctagag ccaaagaatc tgcaaaggat atcataaatg tgaagccatt 120  
gatcgacagg aaagcttggc catatgttca aaacgatctt cgttccaagg cttcttatct 180  
tcgttatgat cttaacacaa tcatttcctc caaacccaag gatgagaaga agtcactcaa 240  
ggatctcacc accaagctct tcgataccat cgacaatctg gattatgcgg cgaagaagaa 300  
gagtccttcg caggctgaga agtactaagc tgagacagtc tccngcnttg aacgaaattc 360  
ctgccaaacc tggggtaaan catttaantt ctgcattttt cctgtaaatt aatatacct 418

<210> 524

<211> 469  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-A10

<400> 524

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 catattgaga acaaatagat ttgggttatat atggctttta cgcacgtttg tttatggacg 120  
 ttagtcgcct tcgtgctgac gtggacggtg ttctacctta ccaacatgaa gaagaaggcg 180  
 acggattttg ctgatacggg ggctgaggat caaaaagacg gtgctgctga cgtcattatc 240  
 gtcggggctg gtgtaggtgg ttcggntctc gcatatgctc ttgctaagtg tgcgcctgna 300  
 agaaggaacg gtgaagtctt tactagaaga aaaaggagtg gtcaaangga gtgacataca 360  
 agaataatga angcgaanaa ncaacagcct tgggcacctc tcaactgtgn aagcgacggt 420  
 tgctactcaa accnttcgtc cgggtctctta atgaangaca acaattgct 469

<210> 525  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-A12

<400> 525

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 agtcggaaag aaaccctaaa gaagaggatt atgggtgctg tatcgatgga gtcgcttcct 120  
 ttaggtttca gattcagacc taccgatgaa gagctcgtca atcactacct ccgtctcaag 180  
 atcaacggac gtcactccga tgtccgtgct atccctgata tcgatgtctg caaatgggaa 240  
 ccttgggatc ttctgctct ctcggtgatt aagacggatg atccagagtg gttctttttc 300  
 tgccctcgtg atcggaata ccctaattgg catcgctcta acagagcaac tgactctggc 360  
 tattggnaag ctactgggta aagattcgta ncatcaaagt ctaagaaaga ctttaa 416

<210> 526  
 <211> 406  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-09-Q1-B1-A2

<400> 526

cgaggctaaa gcagtggtgg ctgagtccta tgctagaatc tttttcagga actctgttgc 60

tactggtgag gtttatectt tggattctga agttaggggt tgtgatgagt gtacaactgg 120

tgatgttgcg actggtgagt tgagggaagg agatagtatt ttgatcaatc atacgactgg 180

gaaagagtac aagcttaagc cgattggtga tgctggacca gtgattgatg ctggtggtat 240

atgtgcttat gctaggaaag ctggaatgat tccatctgct gctgcttgat tttgacttca 300

agtgatcaatg gaaattcaat gagagtcacn tcaagggttc ttgattcaat aatnanaata 360

agttaatggt tccaaaaacc taataaccta atccaagttt tatgaa 406

<210> 527

<211> 408

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-09-Q1-B1-A4

<400> 527

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnngtcag accctggatc caaagataac 180

gacattaaca acatccttat cggctctttat ggatcccaat atagatacaa ggaaatgcgg 240

cagatcataa ctcccgtagg caggaagcaa ctggaaccga tgttacaaag ctaccgcaag 300

gttgtgggcg ctgagctttc aaanagaatg gtgtnnnnnn nnnnnnnnnn nnnnnnnnnn 360

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnna 408

<210> 528

<211> 363

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-09-Q1-B1-A6

<400> 528

gagccgggaa gaagctcagg agtcgcaatg aaatcgctgc cttcgttgaa gccaatccgg 60  
aattcaggaa cgcaccactt ggagacttca atttcactgt cccaagggtc atggaagata 120  
ctgttcccc tgatccgaag cttggctctc cttttccaag cactactacc actacttcag 180  
agaagagcag tgtcaagcag agccataact aatatgttct cttctacctt ctttctgctc 240  
cctaaagcaa tgcgttttga gtctttatag atttgatgtt ctctaaaact gttatgatat 300  
taacatctct aagcaaaaaa tatgatcttt tgtctcaaaa nnaaaaaana aaaaaaaggg 360  
cgg 363

<210> 529

<211> 452

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-09-Q1-B1-A9

<400> 529

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cagttactcc tactggaacc aaaagctcag aaccttaaaa catggagtct ctatctcttc 120  
ccgttctaaa tcctctgtta gcttctgggt ctaatctttt tagaaaccag cactcgagga 180  
tgacctcttc aatggatatc tcacttaa at ccccatcagg aggcacatcg ctctccactg 240  
ttcgtcgctt tggagtangt gttgtagga tgcaagctgt tgatgaagat attgatttga 300  
agcaaatgag agacatagct gctgctaaaa agcgttgagg tgggttggtta agggaangga 360  
aagtgaagct tcttacacca agagaagcan ggcaatgcta ttcccctttc aaacaaactc 420  
cccntgaagg ttcgtccctc caacgaaggg ca 452

<210> 530

<211> 108

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-09-Q1-B1-B1

<400> 530

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 tnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnn 108

<210> 531  
 <211> 477  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-B10  
 <400> 531

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 cgagcattttt ttaacaggaa atccaagtgg gaatgggacc tgcaggagag ctgcgttacc 120  
 cttcgtaccc cgagcaagaa gggacatgga agttcccagg gattggagcc ttccagtgct 180  
 atgataagta ctcgttaagc agcttgaaag cagcagctga gacttatggg aagccagagt 240  
 ggggcagtac tggcccaacc gatgctggtc actacaataa ctggccagaa gacacccagt 300  
 tcttcaaaaa agaaggtggg ggttggaact cagagtatgg agatttcttc ctctcatggg 360  
 actcccagat gctgttggat nacggcgaag cggattctaa cctcaagcca aaatcaatat 420  
 tcgaaaacat tgggtgtcaa aatatcggtc aaaatcgctg gaatccactg ggcacta 477

<210> 532  
 <211> 463  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-B12  
 <400> 532

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 aaacaagaaa tcagacaact ccttgtctcg agacacatta caaatcaaaa aaagaaaaaa 120  
 aaccacgatg gctcaaaatg gttcgaatac tactgtgaag ctgataggga catgggcaag 180  
 cccattcgct ataagggtc aagtggctct acacctcaag tcagtagagc acgagtatgt 240  
 cgaagaaacc gatgttctga aaggaaagag cgatcttctt attaaatcca accctataca 300  
 caagaaagtc cctgtcctca tccatgggtga tgtatcaatc tgtgaatctc tcaacatcgt 360



ccaatacgtc gatgaatctt ggccgtctga tctttccatc ctcccaacac ttccctcggg 420  
aacgtgcctt tgccgttttt ggggctcact togttgacgg naa 463

<210> 533  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-09-Q1-B1-B3  
  
<400> 533

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gcagatgtgt accaaagtgc gtctaattctc ccttcggatg gagatttcag gcctgaaatc 240  
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aacatttacc ctttcatcag tctctacaac gacccgaant tcctgtgga gtttgcttct 360  
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<212> DNA  
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cgctaggttt agcggctgac ccggagaaga ctgctcaact tcagttagct gagatcaagc 240  
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gaagatttta ccagtcagag gtatatatat atagagagag agttatggat ttggatcaat 180
ggatttccaa ggtaaagat ggtcagcatc tctccgaaga cgagcttcag cttctctgcg 240
aatacgtgaa agagattctg attgaggagt caaacgtaca gcctgtaaac aagtcagtc 300
accgtatgtg gtgatatcca tggncagttt catgatctta agaagcnttt tcagaccgga 360
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-C4

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agtatattaa cgtattcaag aaacagcact tacttcacca atctcaaaac acttttgtcc 180
tctctctctt cccggaacgc ttcatactct accggattcc aaactgccac ggcgggacaa 240
gctcccgacc gtgtcaccgg gacttttcct ttgtcgcgga gacgtctcac aaagaagttt 300
gccgtaactg cgtcgctttt tcccgtcaaa gnagacttaa aatgggngtc cgtanaacaa 360
aagaagtcng tggccttaat acgangagtt gt 392
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<212> DNA  
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 tgagaagttt aatttanatt aaacaacaaa aagatggggtt actggaattc naagggttgtt 180  
 ccaaaattca agaagttatt cgacgaaaaa tagtgctana gaaggctgct gctgctgaag 240  
 ctaccaagac ctttgatgaa tctaaggaaa caatcnacaa ngaaattgan gagaaaaaag 300  
 acagaactcc aaccaaaaagg gtcgttgga auctatgaaa ncaacntctg gcagaaaagtc 360  
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 ct 422

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 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 gtgctccttt cgggtgtttct ccgacaaaaa gagtctcttc cttcactgtc cganctgtta 180  
 aatccganan gacaacattc caagtagntc aaccaatcaa nngtgatcca ttcacgga 240  
 gtttggaac tcnggtgaca tcaagcccat tgatcgctg gtancnttcc aacctccctg 300  
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 <211> 391  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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 ncatcacaaa gctcgggagt ctactcgtaa agctacacaa aggtccttca agttggcttt 180  
 gtcttcatcc togaccagac cgaaccagca acggcggacg aatcaagctc gtcagatccg 240  
 acggttcttt acaagtctac gatcgctccg tagtagtctc agagctaaca aaagacttcc 300  
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 <211> 392  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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 gagacgcgaa gggttggtgg aattggaagc ggaaatggta cggtcatact ctgttaaaag 180  
 cgccaagcaa cagcaacctc caccgccgca gcagcaagaa caacagcaag gaggccaaga 240  
 tgtgaactgc ttaccggatt ctccgatgtt agatacatcc ttttctttcg gctccacttc 300  
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<400> 541

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cgtttaaacc atcgattcca aaaagcttgt tacttgacgg gaagcatacc attgaatcgc 180

attttatcct cgттаатсac caaatgaaac agatcagatc agctctagcc attgcatctc 240

ttcttaatcg tacactgggtg atgccaccaa tatgggtgca ggtagatag gctttgggtt 300

tgggcacccct ggggtactcct caaggattta agaccgcaca acctttcatc tgccactga 360

tcatgtcntt gaggtcaata tcatgcttaa gggagctanc 400

<210> 542

<211> 441

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<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-11-Q1-B1-A10

<400> 542

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tgacattctt gtctttaaca ctggacattg gtgggttcat ggaaagaccg ccagagggtgc 180

aggaaaaact actacaaaga aggtgactac atctaccga aatttgatgc tactgaagca 240

tacagaaggt cgttgaagac ttggggcaaaa tggatcgatc agaattgtgaa tccccaaaag 300

cagcttgtat tttatcgcg atactcctct gccattttc ggggangtga gtgggactcg 360

ggaaggatcat gcaacgggga agtagaacct gttaaagaaa gggttcaatc catcgaattc 420

ctaacccttt gaaaaatgaa a 441

<210> 543

<211> 472

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-11-Q1-B1-A3

<400> 543

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gtagcgttgg ttcgagtgat gctcttattg gccatcctgg tttgaagcct atgcgccatc 180  
cctactctct ctcggatggc caaagcgtat ttcggccagg aaaagttact catgcactta 240  
acgatgatgc cttagcacia gcgttgatgg atagtaagta tccaaccgag ggactgggtga 300  
actatgaaga gtggacaata gatctgagga aactacatat gggtcctgct tttgctcaaa 360  
ggggccttttg gaaagtttat acagagggac ttacaaccgg agaaaatgtt accattaaac 420  
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<212> DNA  
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aagcgcaagt gtgtataatg acttaaagag agctcctgtt actccgagtg atagatagtc 180  
tacaattata tcttactctg agtgaaagca atggcgtagc gtgggtccgtc catgaatcca 240  
ccggcctttga gtggagctgt tcccgggtct gctaattctga agcaagtga attggagaga 300  
gaaagcgagc tcaggatcga agtctctgaa gagcctctca aactccgtgt gggtaacggg 360  
aacgctgaaa tttttggctc cgaactgcct cctgaaatat ggcgtacctt 410

<210> 545  
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<212> DNA  
<213> Arabidopsis thaliana  
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agaaactctt tcttagctgc ttctactgtt tacgtttcaa acgaattcaa cttcttaaac 180  
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 gtgttgaaat cggaagcaga gttcaacagt gcattgagta aagctcgaga tggatctttg 300  
 ccatcggttt tctatttcac tgccgcatgg tgtggacctt gcttatctct cctgtgatat 360  
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<210> 546  
 <211> 452  
 <212> DNA  
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 aagaatcctc nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
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 <212> DNA  
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tactcactct tacaccggtg accagagggt gctagacgcg agtcaccgtg atctaaggag 240  
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 ctcttgtgct ccctaaactc aaagggaaac tcaacgggga tttgctcccc gtgttacaac 360  
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<223> Clone ID: ARABLI-11-Q1-B1-B2

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 ccgtggacga accttgcgga ggaacccttg ggttttcggg gcattggatt ctcaacaatg 360  
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 <213> Arabidopsis thaliana

<223> Clone ID: ARABLI-11-Q1-B1-B4

<400> 549

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 ttcgtgggta tgcttcggct tccaaaaggc ctgctacata ccagaaacat gcagcttacg 240  
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 ctacttctcc tgtgtttgtc caagctccag gagagaaggg atttactaac tttgctattg 360



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<210> 550  
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<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABLI-11-Q1-B1-B5  
  
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agagaaggat tacactgggg cgaaaaagtt tgctaacaag gctcaaaact tgtttcccga 300  
gttgatgggt ctgaaacaat tgtttgtggc aatcaatggt tatactctccg ggagagaaaa 360  
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<210> 551  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABLI-11-Q1-B1-B6  
  
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<212> DNA  
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 taaaaaaaaa aaaaaa 136

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 <213> Arabidopsis thaliana  
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<210> 554  
 <211> 436  
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<210> 555  
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 cccatttctc ctactctca gatcccgggc actttacaac ctagacattc tcgctctatg 300  
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<210> 556  
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 aggtggtggc cagccgtcag acaccggttt aattggtttc tccggttcgg atttgaaatt 240  
 ttccgttcaa gatgttcgat cgaaagacgg aattgtttct cattacggag ttttcgaagg 300  
 ttcgaatcct gaaagtggaa ttgatagtga gaaagggaaa gaagtttact taactgttga 360  
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<210> 558  
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 gctgcgaact tacaccttac gtacttctcc ggcggcctga taagaccccc tccaccgatg 180  
 atgtgcctga gtcagccccg cttgaaggtc acttcttaaa gtacagatgg tttcgagtac 240  
 agagtgataa gaaagttgag atttgtagtg tgcattacc cgagacggca acattgcagt 300

gtctgggatg tctaaagtct aaagttcctg ttgccaaaag ctancattgc tctactaagt 360  
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<211> 482  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 559

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ttaaataagg agagagcagc ggatatgtac agattaagcg catatttctt agctcgaacc 180  
acgagtgate tccctctcga ctttattcta ccttctctct tccttcttgt cgtctatttc 240  
atgacaggtc ttcggatcag cccatatccc ttcttcttga gcatgctcac agttttcctt 300  
tgcatcatcg cagctcaggg actcggactt gcaattgggt ccattttaat gggatttaaa 360  
gaaggctacg aactttggct tcaagtaact gtcatgacan tcatgctccc cgggagggat 420  
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ta 482

<210> 560  
<211> 408  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-11-Q1-B1-E4  
  
<400> 560

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caagaggcta agcaaaccga agagtctgaa tgtttaaagt ggttggataa ccagccgctc 180  
ggttcggttt tatatgtgtc ctttggtagt ggcgggtacc tcacatgtga gcagctcaat 240  
gagcttgctc ttggtcttgc agatagtgag caacggtttc tttgggtcat acgaagtctt 300

aatgggatng ctaattcgtc gtattttgat tcacatagcc aaacagattc aatggcantt 360  
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<210> 561  
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 <212> DNA  
 <213> Arabidopsis thaliana  
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 aaacccatcg tttctctgga ggaatacgac gccggttcct tcgccgagag ttgaagtcaa 180  
 taataaggac ggtgaaggaa catcgtcagt tcaacatata ggtacagttg gttcaactag 240  
 cggttccctt aggtaccgg tttagtgttc ggtgatgttt tgtgcattgt tcataaacac 300  
 gcaatagatt ttacgtaatt ctttaatttt gtttgcctt ttctgtaaga tattttaaattc 360  
 gacaatccaa cggaaaaagg agattgtttt acttaattta aaaaaaaaa 408

<210> 562  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-11-Q1-B1-F1  
 <400> 562

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 tctatctttc tctttctctg cctcagcaat ggagagtgat gcattcttga gcttagtttt 180  
 gtgtgggaaa tcctctgtgg aaactgaggt agcaaagggt ttgaagaaca agaactctct 240  
 taaactccca gataatacca aagtttcaact catttttagaa tctgaggcta aagaatttgg 300  
 ttaaagatga tgataattcc ttcaatcctt caatccttaa gaactcnatt ataactcanc 360  
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<210> 563  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-11-Q1-B1-F2

<400> 563

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 tggngtacia gaacatcagt ttcacagtgt gggatgtcgg cggtcaggat aagatccgtc 180  
 ccttgtggag gcattacttc cagaacaccc aagggtcttat ctttgnngtg gacagcaatg 240  
 acagagaccg tggtgttgag gctanagatg aattgcaccn aatgttgaat gangacgatc 300  
 tgcgtgatgc tggtctgtc gtatttgcta acaagcaaga tntcccaa at gctatgaatg 360  
 cagctgagat nacggnntaag cttggtctcc actctctccg tcanccgtca 410

<210> 564  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABLI-11-Q1-B1-F3

<400> 564

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 gtcgcgcttc attgctgctg ggaagcttca ctgtaagata gacaagggtg caggtgtttt 180  
 ggagacaaac cgtcctgatg caaagaatgc actttaccag gcaacaatca agcaagggga 240  
 tttcttgcta aaccgaatcc agaagctgtc tcgtgtgatc gatctgtgag catgctacat 300  
 gtttctgttt cactccttcg tcaaagcttt gcaacttgga aactcccga cggtaaaatc 360  
 ctaaagggtct gagaaacgat atgaactttg gattttgaga tgaatggctg 410

<210> 565  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-11-Q1-B1-F4

<400> 565

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnntggteg catccccttt 180
tatccgagaa ggatctatcc aaatctttgt ttgtcgaatc tcctctcatg gctaccgttg 240
ctctctctgc tgatcaagct acagatctgt tgcagaaact atccttggac tcgccagcaa 300
aagcttcaaa agattcctga gcctaacaag aagaatggcg tctaacaagt atggaggcgt 360
tgangttcaa gggcnagttc cttctaagat ngatctttga caacaaa 407

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<210> 566  
 <211> 272  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-11-Q1-B1-G12

<400> 566

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taggtttgac aagctgattc tactaggaag aggaagtctt ctctactttg gaaaatcatc 120
agaagcttta gattacttct cttccattgg atgctctcct cttatcgcca tgaatcctgc 180
anagttcttg ctcgatcttg ccaacggtaa catcaacgat atctctgtac cttctgagtt 240
agatgataga gttcaagttg gcaattcaag gt 272

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<210> 567  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-11-Q1-B1-G8

<400> 567

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cccacgacct tcttctancc ggccaccgct atctagacgt cangactcca gaagagttca 120  
gccagggaca tgctgtggg gcgatcaacg tgccttagat gaatcnagga gcatcaggga 180  
tgtcaaagaa ncccgacttc ctggaacaag tctcctccca tttcggagaa tccgataaca 240  
tcattgttgg ctgccagagc ggtggttagat ctatcaangc caccaccgat cttctccatg 300  
caggtttcac ggggagtcaa agatatctcg gtggctaana gtgcctgggc caaagaatgg 360  
gcttcctaaa aanggcttga gtgactcaac aatcnacaaa aatccttttc cttanc 416

<210> 568  
<211> 440  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABLI-11-Q1-B1-H4

<400> 568

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gcngetactc aacggtggtg aattttctat acggtcagtt cgatcctctt tttatcgaca 180  
atcctacaca aatccataat catggccgcc actgcttctc ccgaagcttc tgaaggacca 240  
gtgatgggtc tcatcaacaa gcgtctccgt gctctccgta agaaatacaa ccgaatcact 300  
caaatggaag aatcgatttc tcaaggcaaa accctaaaca aggagcaaag aagaagtcct 360  
ccgctctaaa cctgccgtcg tcatcctaata cgacgagctt gaaaagattc gtgctcctct 420  
ctccgccgct gtgacagaag 440

<210> 569  
<211> 218  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABLI-11-Q1-B1-H5

<400> 569

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tgttctacta tttcagtagc aactgtactg atccacccca atgtattcac ttactgtata 120  
tccacctatc caaaatttat tcgtttgtat ccattacttt gtatcacgat tcgaacacac 180

ctctctttttt ttttcccctt ttcaaaaaaa aaaaaaaa

218

<210> 570  
<211> 412  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-11-Q1-B1-H6  
  
<400> 570

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atctcaacca accgtaccgg accggttatc actttcaacc tctcaaaaat tggatgaacg 180  
atcctaattg accaatgata taaaaaggaa tataccatct tttttaccaa tataacccat 240  
acggtgccgt ttgggatgtg agaatcgtgt ggggacactc cacgtcagtt gacttagtca 300  
actggatttc acaacctcca gcttttaatc catctcagcc gtcaagatat caacggttgt 360  
tggtcangct ccgtcacgat tctacaaac ggnaaacctg tgatcctcta ca 412

<210> 571  
<211> 456  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-12-Q1-B1-A2  
  
<400> 571

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aaataaggag gcaaaaatgt tcatatatga attggaatta tttgttttct tattaggcct 120  
atcctgaagc caaaggaaat gagatcgga ttcctcgggg aattccaatt ccacattttc 180  
aagaaataag gaggcaaaaa tgttcatata tgaattggaa ttatttgttt tcttattagg 240  
cctatcctga agccaaagga aatgagatcg gaattcctcg gggaattcca attccacatt 300  
ttcaagaaat aaggaggcaa aaatgttcat atatgaattg gaattatttg ttttcttatt 360  
angcctatcc tgaagccaaa ggaaatgaga tngggnatte ctcgggggta ccgaactccg 420  
aantccnaa agtggagtcc gtattaaatt cgtaat 456

<210> 572  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-12-Q1-B1-A3

<400> 572

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ctactatcat caaatttctc aacatcgatt cttgctcaaa tcaatacacc atgttcacca 180
tctatgctct ctagecgttac aggttgacag agttttctaa cgggaggtgg tagttttccg 240
acctcagatt gttgtggggc tcttaaactg ttaaccggaa ccggtatgga ctgtttgtgt 300
ctgatagtaa ccgcaggtgt tccaatcagt attcctataa accgaacttt agccatctct 360
ctccctcgtg catgtggcat tcttgggtgt ccccggtcaa tgcaaagctt ctgcagcaac 420
tctccctan 429
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<210> 573  
 <211> 432  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-12-Q1-B1-B3

<400> 573

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acatttcacg gattctcttc atcttctctt ccattcaaatt ctcacattcc ctcttcacaa 180
caacagcttc gtattcgttc atcttctctg ctttctgata ttggaaatcg caggcattgt 240
tcgtctactc gaggatttca attttggtca tnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnacc ggcggttcgt 360
atttccgacg ggaatctaatt catcaaaaac cggacgattc taaccggtgt accaagataa 420
tgatcatcac aa 432
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<210> 574  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-12-Q1-B1-B6  
  
 <400> 574  
  
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 cgatattctc atcgttacga cggaggagat cgccgtcttt ggaagcattc ttagcccccg 120  
 ttgacctttc cggcgtcgca cttgttcaaa ccctagcttc aatctcttcg gaggttggtt 180  
 cttgtttcac ctctgttcga ttctcgtttc aacgcaagaa cgctcgttct ttgattcgta 240  
 agatcgagat ctttgtcgta ttattcgaat ttctcgtaga ttcaaattgg ggctnnnnnn 300  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnntctgt ttctgaatca acagctttgc 360  
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<210> 575  
 <211> 67  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 575  
  
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 nnnnnnn 67

<210> 576  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-12-Q1-B1-C3  
  
 <400> 576  
  
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ataaggaggc aaaaatgttc atatatgaat tggaattatt tgttttctta ttaggcctat 120  
cctgaagcca aaggaaatga gatcgggaatt cctcggggaa ttccaattcc acattttcaa 180  
gaaataagga ggcaaaaatg ttcatatatg aattggaatt atttgttttc ttattangcc 240  
tatacctgaag ccaaaggaaa tgagatcgga attcctcggg gaattccaat tccacatttt 300  
caagaaataa ggaggcaaaa atgttcatat atgaattgga attatttggt ttcttattag 360  
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<210> 577  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABLI-12-Q1-B1-C4  
<400> 577

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agggatcgtg gttcaagctt tgggtggtcgt tcaggcgggtg gtggttatgg tggcagcagt 180  
ggtggttatg gtggtgggag ttcaggcgga tcaagcaacc gttattctgg tgattctgac 240  
cgttctggtt ttgggagctt cgggtatgctg tctcctgagg gatatgggtc ggatcgttca 300  
tctcagtcag gtggaaggag cagctttggt ggggtggtcgt tcaagcggat catcaaacia 360  
tcgttcctct ggtttcgggg actttggctc tgaccgttcc ttctcagtca ggcgga 416

<210> 578  
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<212> DNA  
<213> Arabidopsis thaliana  
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catttcgaca cgttcgggag aatctctgga tggaatcatc acgacttaac tatgacgtca 180  
tcatactcat cagaacatca acaacaagaa caagaagaaa gngtaatgg tggtttcatg 240

gngannnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
 nnnnnnnnnn nagtggttctn tgggtgggcaa caacaacaac aacaaagggg tnccttcag 360  
 tccaatttaa tcccnattcg tttcggtcct tgggattatc aacaaacgaa gtcgggt 417

<210> 579  
 <211> 414  
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 ctttccacag cggagccaag cagagcagct tcggcgctgt cagagtcggc cagaaaactc 180  
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 acatcctcga tgacctcaac gangccacaa agaaagcttc agatttcgtg acggataaaa 300  
 canangaggc attagnanat ggtgaagaaa ncgaaagact atcgttgttg aagaanacan 360  
 ntgnaaccgc agatncattg ggtnaaagaa gcttaagaaa agctgcgggn tatg 414

<210> 580  
 <211> 426  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 acatcaaaga agacacatac ttcgtctcag aactcaaacc cacggagcaa aaatcacttc 180  
 aagaactcaa agaaaagctc tcagcttcat cctccaaagc ttcttcaatg tggggagtct 240  
 cactcctcgg tggagacgac aaagctgacg taatcctcct caagttcctc aagagcaaga 300  
 gatttcaaag tagcaagact cctttgagaa atggcttgag aaagtgttg ggagttggag 360

aagaagagtt tcaaaagcaa gagaaaattg ncaagaanga agatttgggg gttttaaaag 420  
gatttg 426

<210> 581  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABLI-12-Q1-B1-D2  
  
<400> 581

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ggacatgctc ttcattgtgtt tgtcaatgggt cagctttcag gaactgctta tggaggactt 180  
gaccacccaa aactaacctt tagccagaag atcaaactac atgcaggtgt caacaagatt 240  
gctcttctga gtgttgacgt gggctctccg aacgttggta cacattttga acagtggaat 300  
aaaggagttc ttgggtccg tccattgaa gggagtaaac tcaggaacat gggacatgctc 360  
gaaatggaaa tggctctata agattggtgt aaagggtgag gctttgagtc tcata 415

<210> 582  
<211> 422  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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gtgttccacg agttttacgac aaactatatg ccggtataat gcaaaaaata tcagctagt 180  
gcttgatacg caagaaactg tttgattttg cttataacta caaattggga aatatgagaa 240  
aaggattctc tcaagaagaa gcttctctc gtctagacag acttatgttc gataagataa 300  
aagaagcatt aggaggaaga gctcatatgt tgttatcaag gagcancgcc tctacctcgt 360  
catgtanang agttcttgag aatcantcct gcctcctaata ctctctcaa gggatatggat 420

<210> 583  
<211> 405  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 583

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ttttcttatt aggcctatcc tgaagccaaa ggaaatgaga tcggaattcc tcggggaatt 180  
ccaattccac attttcaaga aataaggagg caaaaatgtt catatatgaa ttggaattat 240  
ttgttttctt attaggccta tcctgaagcc aaaggaaatg agatcggaat tcctcgggga 300  
attccaattc cacattttca agaaataagg aggcaaaaat gttcatatat gaattgggat 360  
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<210> 584  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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ctctttgtcc gtcacattta ccggtcgatc aaatgcgagt aagaaggctt gtacaccaan 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnagaacaaa 240  
gaagataaag agatagggtt ttagaaagaa gagagacaca nagacaatgt ctgattattt 300  
tctaaagaag catctcttct cattagaggt ttancgaga agtctctctt cttctcctct 360  
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<210> 585



<211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 585

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aaagcttggt actttacaga tttgggatac tgctggacaa gagagattcc agagtcttgg 180
tgctgctttt tatagaggag ctgattgttg tgctttgggt tatgatgtta atgtgttgag 240
gtcttttgat aatctcgaaa cttggcatga ggagtttctt aaacaggcaa gtccatcaga 300
tccaaagaca tttccgttta tagtgcttgg aaacaagatt gacgtanatg ganggagcag 360
tagagtggnc tctgataaga aaagcagctg actgggtgtg cctcaaattg taacatancc 420
ctaattccg 429
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<210> 586  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABLI-12-Q1-B1-E5

<400> 586

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agatcaaaag atgaacatcg ctcacactat cttcggcggt ttcggaaatg caactgctct 120
gtttcttttc ttggctcctt cgataacatt caagagaatc atcaagaaca aatccactga 180
acaattctct ggtatccctt atccaatgac tctcctcaac tgtctcctct ctgcttggtg 240
tggaacttccc tttgtgtcaa aagacaacac acttgtgagc acaatcaatg gcacaggagc 300
agtgatcgaa acagtctacg tgtaaatctt tcttttctac gcaccaaaga aggagaaaat 360
taagatcttt ggtatcttct cttgcgtttt gggctgtatt cgcaacagta gctctccgt 419
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<210> 587  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-14-Q1-B1-A8

<400> 587

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atcttcttgc cgtcttcttc ttcatttcac caggaacttt tatttgaaat cggtttgatt 120
tagccatggc aaacgcggca tcgggaatgg ctgtgcatga tgattgcaag ctgaaattta 180
tggaactgaa ggcgaaaaga acattccgta ccatagtcta caagattgag gataagcaag 240
tgattgtaga gaaactcggg gaacctgaac aatcatatga tgacttttgc agctagtcc 300
tccaactgaa tgatggccga taattgcatt tacgaattcc aacttgnaa ctgcgggaga 360
actggccaaa aagaagcaag attcttcctt caattgcaag gggctctccg gacactggcc 420
aaaattgag 429
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<210> 588  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-14-Q1-B1-A9

<400> 588

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cagaacttct agttaggtgg taccaagtgg gtgcttacta tccatttttc aggggtcatg 120
ctcatcacga taccaaaaga cgagagcctt ggttggttgg tgaacggaac acagaactca 180
tgagagatgc catacacact cgttacacac tgctcccata cttctacacg ttgttcagag 240
aagcaaacgt tacgggtggt cctgttgtag gccattatg gatggaattc ccgcaagatg 300
aagctacttt tagcaacgat gaagccttca tggctcgtag tggcttactg gttcaaggag 360
tttacaccaa gggaacaacg caagcttccg tgtanttgcc tggcaa 406
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<210> 589  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-14-Q1-B1-B10

<400> 589

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acactctcac cgcantggcc gctcgcacaa nggntctctc ctctctgct ttgaccggaa 120  
aggncgttaa gctatccccg gcggmctccg aagnatttgg aaccggccga atcancatgc 180  
gcaaagcctc caagcccacc ggtccatccg gcancccatg ggacggatnc gaccgagtca 240  
agtacttggg tccattctcc ggtgagcctc cgagctacct cactggagan ttccccggtg 300  
attacgggtg ggacactgcc ggtctatccg ccgatnccga naccttcgct aggaaccgtg 360  
agctanaant tatccacatc agntgggcca tgctcggagc cctaaggtgc gttttctga 420  
gctattggc . 429

<210> 590

<211> 406

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABLI-14-Q1-B1-B11

<400> 590

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ggcgacggct ccgccggaga tgacagattg gttgtgcttg accaaactca aaacagagaa 180  
ttgcatattc ctggtttcgg tgtttttcaa aatgtctccg ccgatataaa ctgcgacaaa 240  
ggagaacgaa ctcgattccg ttccgacatt cttgacttca acaagatgtc ggagtatttt 300  
aaccaagagg tcgtcgggtga ccggaaaaat accgtcggga aatttcaacg cgacgttcgg 360  
gtttcaaagc gggatcatggg cgacagacgc cgcaaacggtt aaatct 406

<210> 591

<211> 419

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-14-Q1-B1-B5

<400> 591

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 cttgccgata ttccgagtat attacaagg tcttaacgga tctctaaatc ttctgattta 120  
 agaagatgct tcctctatcg ctgcttaaaa ctgctcaagg gcacccctatg ctctgggagc 180  
 ttaagaatgg agagacatac aatgggcatt tgggtgaattg tgatacttgg atgaacatcc 240  
 atctgcgtga agtcatatgt acatcaaagg acggagatag attttgggag gatgccggaa 300  
 tgttatatcc cgtggtaaca caatcaagta ccttccgagt tccgggatga ggtgattgat 360  
 aaagtacaag gaggagaaag acacgccaca agatagaaaa ncaacaagggt ggttggacg 419

<210> 592  
 <211> 404  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-14-Q1-B1-B9

<400> 592

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 tttggatcat gatcctgctg cttctgctcg tatatacgaa ttccggttgtt ttggcatcca 120  
 atctgccaaa gttaacgact gggattggtg cgcttgcatg gctgggattc attcttgcaa 180  
 ctgcaggatt atttttgttc taccgctgta gcaggaagga tccaggttac atcagaatga 240  
 atatccatga tccgcaaacc atgaaagatg atgaaccact cttaaaaata gagctaaaca 300  
 atcctgcttt gcttgctggg aattggacac agctctgtgc aacatgcaag attatcagac 360  
 ctcttcgagc taagcactgt tccacctgtg atcgttgtgt anag 404

<210> 593  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-14-Q1-B1-C1

<400> 593

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 ctttcagggtt attcgacaag aatgggtgatg gttccattac gaaaaaggag ctcggtacca 120

tgatgcgttc aatcgggtgaa aaaccgacaa aagctgatct tcaggacttg atgaacgaag 180  
 cggatttaga tggatgatga accatcgatt tccctgagtt cttgtgcgta atggctaaga 240  
 atcaagggtca tgatcaagcg ccgcgtcaca ctaaaaaaac aatggcggat aagctcactg 300  
 acgatnagat tacaagagta cagggaatcc ttcaagttat tccacaagaa tgggtgatgg 360  
 gtccaatacg aaaaaagggc tccgttaccg tggagttttc cctccggaaa aaaacgg 417

<210> 594  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-14-Q1-B1-C2

<400> 594

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 taaaaaatct gaccaagaa aacatttctc agatcaacgg ccgtccggtt cttcaaccga 120  
 agtcgaacca agttccgaca ttagaccgac gtaactcact aaaaaaatcg cctcctaagc 180  
 ctttgaatcc aattgcatca aagataccct caccaagacc aatttctcta atctctcctc 240  
 ctttgtctcc caacacaaaa tccttaagaa aaccggccgg ttcttgcaag gaacttctta 300  
 ggtctaagct ctacaaaatc gaaaccagtg atatcaccaa gagaacagtg atgggggnta 360  
 caaagagggtt atgcctaagg tgattgttca aaagcagcct ggaagtatag cagctgcca 419

<210> 595  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-14-Q1-B1-C4

<400> 595

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 atgtagttga tgctgcagat cctgacaacc taagtgtgtc gaaaagtga ctccatgatt 180  
 tgttgagcaa gacttcgctt aatggatatcc ctcttctcgt tcttggaac aagattgaca 240

aacctggagc tctgtccaaa gaagccttaa cagacgaaat ggggacttac atcacttaca 300  
gatagagaan tctgctgttt catgatatca tgcaagaact ctaacaaana ttgatnaagt 360  
cattgattgg ctcgtaaagc attcaanagt ccaagnacta atcctcanca aagaaca 417

<210> 596  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABLI-14-Q1-B1-C5  
<400> 596

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ggctccgggtt attgcttctt tctccggtag aggaccaaac ggtttaagcc cggagattct 120  
taaaccggat ttgattgctc ccggagttaa catcctcgcc gcatggacag acgctgttgg 180  
acctacaggt ttgccgtcag atccaaggaa aacggaattc aacattctct ccggtacttc 240  
aatggcatgt cctcacgtta gtggtgcggc ggcgcttctc aaatccgctc atccagattg 300  
gagccctgcc gtgatacgat cggcaatgat gacaacgact aacctcgctc ataactctaa 360  
ccgctcgttg atcgatgaat ccaccgggaa atcggtacg ccttaagatt 410

<210> 597  
<211> 432  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-14-Q1-B1-C6  
<400> 597

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gaacaagaaa caaaaacaaa acgttggtta agtgtggttc tatagatttc ttgtgaatgt 120  
cttctgaaca aggaaatgga tcgaatcctt ccacgtcacc ggaggtagaa gggactaaaa 180  
caatccccctt tcgccggaga ttgcaaagag gacaaagagt tttcgctcca aagctgatgg 240  
aggctctacg tcgatcaagg gtaagctctg aagaagctcc ggtaaggcat cttagtcgta 300  
gattggaaaa gccacaaacg cccaaaaagg tanattcccc taaagntcct angangcctc 360

cttcnaacga ttgcgggcg gaaccgcaa canttccggg ggacaacggg ccgaacaaaa 420  
ntcccttgcg aa 432

<210> 598  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 598

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tgtaaccaa gttgaatgtc acccagtttg gcagcaacaa ggtcttcatg agttatgcaa 120  
atccaaagga gttcacttat ctggttactc tcctttgggt tcccaaagta agggagaagt 180  
caggctaaag gttcttcaaa acccgattgt taccgaggtt gctgagaaac ttggaaagac 240  
caccgcccaa gtggctctcc gttggggact ccaaactggg tcatagtgtt ctacccaaaag 300  
agctcgancg gggctcggct caagganaat cntgatgttt ttgactggtc caaacggna 360  
agattcggtt taacaaagtt cccaacaat cccagagaga agttttgccg anctactg 418

<210> 599  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-14-Q1-B1-D3  
  
<400> 599

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnngag aatgtcttct acaacaatcg 120  
gcgagcacat cagactccga cgagctagaa accaaacaat ccgtcatctc cagcccgccg 180  
acgatgatcc gccgctaagc cacgtcgttc ttccgatttc acaacctaata cgcttctgta 240  
actccgcaat gtcttcttcc tttcccttcc cgacttcttc ctccaacgaa agcacgagga 300  
agaaaccgta ccaaacgtcg tcgtttcgag ggatgggttg ctatgccgca agcaagcaag 360  
caagcaagct caagaggttt ctgttccctc cgtcattcgc tactccgcgg gatttggga 418

<210> 600  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-14-Q1-B1-E10

<400> 600

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agctgtgtat tcctctgtca agggagctaa agttgtgaat gataggacta ctggacggtc 180
caaggggttat ggatttgtca ggtttgcgga tgaaagtgag cagattcgtg ccatgactga 240
aatgaatggt caatactgct catcaaggcc tatgcgtact ggtcctgctg ccaacaagaa 300
gcctcttaca atgcaaccaa cttcaataac aaaaacactc caaggggaant taaggngaaa 360
attgttcaaa ctaacannaa caatttttgg ttggnaccct tttggtttta aaattgtaaa 420
n 421
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<210> 601  
 <211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-14-Q1-B1-E11

<400> 601

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tatccagccc gggccatcca ttttggttga tcaaattgat actgaaaaat ccaaagaacc 120
tggtaccgag agtgctgatg tgtctttaca ccaattagct gatatccagc ccgggccatc 180
cattttggtt gatcaaatgg atactgaaga attcaaaaat cctgatgtgt ctttacacca 240
attagctgat attgagccct cactgtctat ttcagctgtg caaaagaata ttgaggataa 300
ggatcaaagt cacgttgaaa ctgctggatc tgagttagtt gatgtctccg ccgaatgttc 360
aacagaacct caagttcaat tacggcatcn tcaaagccaa tggga 405
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<210> 602



<211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: ARABLI-14-Q1-B1-E3  
  
 <400> 602  
  
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 attcttgaac tcatgattac agagggcgta aggtttgaag cggagaggca tcagggataa 120  
 agtagagatt caaacagttt cagggtttca aacaggataa cagggatata catgattaaa 180  
 agtttgaaaa gggttacaaa acagaattag agagtaaaag cagagacact accgggatgc 240  
 atagagaaga tacctccact tctcggtgag gtgaaaacag ttgaaaacgc cggaaaaagg 300  
 tcaactgggaa ctccatcttt gcccgttgtg taaagccatt tttgggaagg aactgttgga 360  
 taattctggt ttaataaaaa gagtaactga agatctggtt tttcaaaagt ttc 413

<210> 603  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-14-Q1-B1-E5  
  
 <400> 603

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 taattgccaa gcgaacaagt ctttgctctt ttggtttact ttctctgtt ttcgatccat 120  
 ttagaaaatg ttattcacga ggagtgttgc tcggatttct tctaagtttc tgagaaaccg 180  
 tagcttctat ggctcctctc aatctctcgc ctctcatcgg ttcgcaatca ttcccgatca 240  
 gggtcactct tgttctgact ctccacacaa gggttacgtt tgcaagaaca acttattcat 300  
 tgaaatctcc ggtttttggt ggatttaagc aatcaactct atcaacanag taactccttg 360  
 ggttgangaa gaacttgacc caatttcgcc tggttgccga tgaactgtca c 411

<210> 604  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations

<223> Clone ID: ARABLI-14-Q1-B1-F10

<400> 604

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aaagcagagt ggtgttgga ccgtcagagt tggccggaag agtgagctcg tcgtcgttgc 180  
tcagcgcaag aagtcgttga tatacgccgt taaaagtgc ggcaacatcc tcgatgacct 240  
caacgaagcc acaaagaaag cttctgattt cgtgacggat aagacgaagg aggccttggc 300  
ggatggcgag aaaacaaaag actacattgt tggagaaaa caattgaagn caaatgaaac 360  
tggcaatgan ggaagctaaa aaacctttg gattnagttg acctgagaaa agggaaaag 419

<210> 605

<211> 410

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABLI-14-Q1-B1-F11

<400> 605

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catatgagtt tgatcaatct cattcaatac aatggctgaa gaaaagatca agaagagctt 180  
gcttgctgcg gacgacagcg acgatgagta ctcaagaggt gatacagttt cagatcagac 240  
agaactgagt tcgattcttg ataaacttag tctagaacct aagacggaga aaaagaaact 300  
cttggctctg agtctaagtg gtcttcttct tcacagagtc cacaaaaaag agttgcgtaa 360  
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<210> 606

<211> 409

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-14-Q1-B1-F2

<400> 606

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 tacgaattct tcaccaagat aacacaattc cagtcaatga cgttccaagc tgtggaagat 180  
 tccgacacaa cgtgggggtct agtcatggaa ggtgtcgatt ctgggttctaa attcaacggt 240  
 tcaacgttcc tctcacggcc gaaacacaaac gcgacgttga gttttattcg gttagaatca 300  
 gacggaaaca tcagagtttg gagttacagt acgttgggcg acttcacggg ctgggacttg 360  
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<210> 607  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tcgatggcgt ctccaaaact ctcgacctta tccgttctaa gggtaaaaat gttgtctttg 180  
 tgaccaacaa ttccgtaaaa tcgaggaggc aatacgctga aaagttccga tctttgggtg 240  
 tcaattctat tactcaggat gagatcttct cttcgtcatt tgcggcagct atgtatctca 300  
 aagtcaataa ctttcctaag gacaagaagg ttaagggtgaa ttggtggaaa aggggtgtcct 360  
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<210> 608  
 <211> 472  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-14-Q1-B1-G10  
 <400> 608

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 tctatgtctt tgagtacagt gtttccctg ctatcttctt tgccaaacct cgaggcggcg 180

tatgcactat agcatcttca gatcctccag aagaagtcac ctatcgagca aattttctct 240  
 tgcaaaatgg ttttggtgtg tacaatgtct tcaagaacaa ctgtgaagat tttgccatct 300  
 attgcaaaac gggtttgcta gtggcaaaca ccgacgtggg aaggagtggc caagctgctt 360  
 caattgttgc agctgccaaag tggttcttctt tctcaccac tcangtttgt aacaagtttt 420  
 ggggtgnttg gctgtggctg ggctaaggga tgtactgcaa caagtcnct ta 472

<210> 609  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-14-Q1-B1-G11

<400> 609

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 gccttaagca cgtcagtact acgtgatatc atgaaccaa gctccatacc catcaaagta 180  
 actccaaaac tgccaacaac agagaagaac ggaatgaata gtccgtccta tcgattcttc 240  
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<210> 610  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-14-Q1-B1-G2

<400> 610

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 agttcagaca ccgaatctag cgaatctgtc tctcaacgac tcgatctgga gcacaaactc 180  
 tgtcttcaaa gagcgtcgaa acttagacat agccgccacc accgacaaga acaacaacca 240

gatcgactat tatcagaaga agacaacttc cgacaacatc aattccaact gggaactggg 300  
aagtcttctg gttcaaaaca acgacatggg gttaaggatc cganctgtgg ggtcaaaatc 360  
caacgtcgat ttaaacccaa tccgacaaat tcaactcaac cgttcaacga cacgtgggaa 420  
aat 423

<210> 611  
<211> 434  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 611

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agagaacatg attctcatca ggtggaatct taaaggtgta cctagagtcc catgggagggc 180  
aaagggagag tttcagggtg cttctcgcta taaactcgac cgaaatggca aaatctatga 240  
gcataaggtc gataacttgg cttcaactt cctcaccac gctcaaacct gccacttctg 300  
ttttgggata tgggtcaccg cttgccctgg caaagtccca aatccaaact ttcaatgttt 360  
tgggcgcaa tgggattcat actcatcctt cntgggant tgaagtttct acaaaagcaa 420  
ttgcaaaagg gaca 434

<210> 612  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABLI-14-Q1-B1-G7  
<400> 612

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tcgcgatcct tcttccacct cttggagttt gtctcaaacg tggctgttgc actgtagagt 180  
tcttgatttg cttgggtgctg acaatcttag gatacatccc agggataatt tatgcactat 240

acgtgatcgt gtttcaaaac cgtgaaggct ctaccgaact tggagctcca cttaactcag 300  
 cttgatctgt tttgggtccat tacacggatc aatatgttgt tgaaactggt ttacttatca 360  
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<210> 613  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-14-Q1-B1-H10

<400> 613

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 agttgagctc aagactcaga gggatattct tttgtgttgt tgctggcatt tcggctactt 180  
 ttctcattgt cctgatgatt attgggcata cgttcgtcct tcncttcgat ccctatagga 240  
 gaaaattcca ccacttcatt gctaaacttt gggcttccat aagcatttan ccgttttaca 300  
 naatcancat cgagggtttg gagaatctgg catcatcang acactcctgc tgtatatgtt 360  
 tcaaaccacc aaagtttctg gatatctaca cacttcttaa gtcttgggaa a 411

<210> 614  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-14-Q1-B1-H12

<400> 614

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 attgctatgt tgcgtgtctc gtaccgagtt ctctgacaag aaagcatact tacgctggca 180  
 gaaaaggcag ttaaacadgt tagcagaggg gctcattaac aatccagttg ttggatttgg 240  
 agaatcaggt cgtaaggcaa ctgacctgaa gagtcttctg ctaaggattg aagaatcaga 300  
 gtctcttcca tctcagctg gagaagtgca aaagagcaga atgtttaaaa tctcttagag 360

aanttgctat ctcactttgc tganaaaacc ggctcnttgg tgatttgacc ggttgaa 417

<210> 615  
<211> 491  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABLI-14-Q1-B1-H3

<400> 615

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ccttagggta catgacacgg aaagatacag aagtcaagct tccaagacct actcgtgtca 180  
agaacaaaac tccggcgccg attcaaataa ctgccgaaca gatattaaga gaagctcgag 240  
agagacaaga agctgagatc cgtcctccca agcaaaaaat cactgattcc actgagcttt 300  
ccgactacag actccgccgg gngaaaggaa tttgaanacc aagattcgtc gcgcgagatg 360  
gaacattcaa gtttgggtca aatacgtcga atggggaaag agtcacaaga aagattacgc 420  
tcgtgctcga aagttgtttt gggaaccaag ccatanaaag gnngattata gggaaccata 480  
cgctttggnt c 491

<210> 616  
<211> 432  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABLI-14-Q1-B1-H6

<400> 616

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tggacgtcga aacaacctgc ctcgtccaaa cctcagaaga cgatgtaagg tcaccgcttc 180  
acgggctaata attgaacaag aaggtaacac agtgaaagaa cccattcaga atattaaagt 240  
aaagggatac ataacggccc aagaagagtt tctggagggc ataacttggc ccaagaggtc 300  
tcgatgacat tgctggatat ccgcggnan antaattgct ccgtcgagct tattancgcc 360

aangactgga ccaaacggga nttacgggta gaagantang ncanaacngt gttatggggc 420  
ccaaagnccc ct 432

<210> 617  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABLI-14-Q1-B1-H7  
  
<400> 617

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ttggtttctt tgagagagta aaaatggcag atcgagtga gccagaagac gaactgtttc 180  
ttgtcgcata cccgtatattt aatgtcaacg agatgcttgt agtggaagag ctctacaagg 240  
aagctgttgt gaacactgac cgaaaactaa tcattcttcaa tgggagaact tgaccgcata 300  
cgatcggggg tgtatccttt ttcttctcat aaatgaaaca aagtagattc ctttttccat 360  
ttgcatcaca acttgagaac caaatgagaa agctgaatca agagagagag act 413

<210> 618  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABLI-15-Q1-B1-A5  
  
<400> 618

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atagttggtt ctcttctcga ttcttagggg ttttagagac ttggtgctct tgatttcgag 120  
tgatcataca gtattacaag gcatggacaa atcgagtggg ttggatttca tcaaccagat 180  
gttcccagta gaagcttctc tatcttgtgt tgagtctttt atgcaaaaga tttgtgacga 240  
gattcggcga gttgatgcta ccatttttagc tgttgttagt caacagggtg actccggaac 300  
tagagctaaa gaaaatctta atgatgccat atgtgctgcg gaggaactct ctcataagat 360  
acaagagata aaatcaaaag ccgaacaaaa ccgaagcaat ggtccaagac atat 414

<210> 619



<211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-A7

<400> 619

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 tactcatcaa agacgcaaag aacttcgagg gtcgtcctga caagtctgag agggaagcaa 180  
 atgcctccgg cgccgccgcc aagtcgggtc accccccgtc caagcgggtc ttcgtcggta 240  
 acttgagctt cgatgtcacc aaggaggccc tcgaggaaaa tttcagcaag tgtggaacag 300  
 tcaacaacgt gcatatgggt accttccang acacaggaaa atgcaaggga tatgcttggg 360  
 tggaattcga agagcttgcc gcancaagaa gcagcgggtga gangatcatg ctaatga 417

<210> 620  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-A8

<400> 620

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 agttcagttg gagaagagct cttctatcgt gctgcgtttc aggggtgcact agctgatata 180  
 ttcctaaggg gcacagatct tatctcggat ttcgaggaa tggttgcttt gactggactc 240  
 ttgccaccat ttgtaccatt tgctcaaagt atttgcance actaataaaa gccgctctca 300  
 cnggntcccc caacnacata gctgcttccc ctaaagatcc aacttanata annggaaccg 360  
 ggtcttgaaa actcnctctg cccgaaaaca acctgaanaa tttgtttgca ccgtggtatn 420  
 ac 422

<210> 621  
 <211> 201  
 <212> DNA

<213> Arabidopsis thaliana  
 <223> Clone ID: ARABLI-15-Q1-B1-B11  
 <400> 621  
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 aaatgtagta atggaaacaa tgtgagggat ataatctatc tatctagtcc caaagggtaa 120  
 gcaatatttt gttgttatgt cttttagtca atgcactgaa agctatatatt aattacattg 180  
 ctgtacaaaa aaaaaaaaaa a 201

<210> 622  
 <211> 373  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-B2

<400> 622  
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 atcttattta cacatgtaag tttttccatc taagnngcta ataataccac aaaccgtaat 120  
 ataacgtcca tttggtcaca ttctacacat tacacaacag acatcatcag cagtccaatg 180  
 cgacggtaaa aaccttttaa aagtaacggc gggttacat atattacaga ctttatttaa 240  
 ctttttttaa acttattttt tttcttttac tcatacgang cnaatgacan catcaagcat 300  
 ccacanatcc acctcggaan agggactcat caagcngagc cggtggcccg ccgtggtaac 360  
 ggtcanctca agg 373

<210> 623  
 <211> 426  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-B3

<400> 623  
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 ttccacattt tcaagaaata aggaggcaaa aatgttcata tatgaattgg aattatttgt 120

tttcttatta ggctatcct gaagccaaag gaaatgagat cggaattcct cggggaattc 180  
 caattccaca ttttcaagaa ataaggaggc aaaaatgttc atatatgaat tggaattatt 240  
 tgttttctta ttaggcctat cctgaagcca aaggaaatga gatcggaatt cctcggggaa 300  
 ttccaattcc acattttcaa gaaataagga ggcaaaaatg ttcatatatg aattggaatt 360  
 atttgttttc ttattangcc tctcctgaag ccaaagggaa tgagatcgga atccccnggg 420  
 gtaacg 426

<210> 624  
 <211> 433  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-B4

<400> 624

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 ttctctcttt atcctctccg cttggcaaat gttcaatgat ggtggctcctg cagctaaaga 180  
 attggctcca aagcttgatt tgggtaaggc acatttatct tctagattag gagtaacatt 240  
 gccccaaata gaggtgagac aagtcgttgc tactattatt gccctgaaag gagtcggagg 300  
 cttactcttt gttatcgaa acaccttcgc gtgcttatcc ttctggcttc ctactttggt 360  
 ggtttttcgg tccctaattc tcctatgaat ttctacaaac taacggacct caaggaacgt 420  
 taattttctc ctc 433

<210> 625  
 <211> 531  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-B9

<400> 625

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 naagaattcg gctcgagcaa aagaagaaga gaaacaacaa gaagaagtaa tggcttcctc 120

tatgtttctcc tccaccgctg tggttanctc cccgggtcaa gccaccatgg tcgctccatt 180  
 caccggcttg aagtcateccg cttctttccc ggtcaccgc aaggccaaca acgacattac 240  
 ttccatcaca agcaacggag gaanagttag ctgcatgaag gtgtggccac caatcgga 300  
 gaanaagttt gagactctan cttacctccc tgaccttagt gacgttgaat tggctaanga 360  
 agttgactac cttctccgca acaagtggat tccttgtgtt gaattcnaat tggnnacgg 420  
 gtttgtgtac cgtnagcang aaacactccc ggatattaat gatggacgat aacgntcaa 480  
 tgtnngaacc tccaattggt cgggatgcaa ccgaaccgc tcaaattttt a 531

<210> 626  
 <211> 465  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-C10

<400> 626

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 agcagcgtac gggacagcga agagcggggg tgggtgtagcg tcgatgggtg tgatgagacc 180  
 agagcttgtg atgaaatcga ttgttctctg ttgttatggct ggagttttag gtatttatgg 240  
 tttgatcatt gctgttatca tcagtaccgg aatcaaccct aaggncaagt cctactatcc 300  
 attccatggc taagctcaat ctccctctcc ggtccttgcc ttgtgggtccc cgctgggtcct 360  
 cctccgcggg tatggctaata ggaaattgtc cggcgatgcc ggtgttaaag ccaatgcaca 420  
 acaacctaaag ttgtttgtgg gaatgattcc gaatcccaac cttgc 465

<210> 627  
 <211> 457  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-C11

<400> 627

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taattctagc gatttgggtca ccaatttcac actcgcttca cttcgatcta cactcaggtc 120  
gcacaaagtg tatcgccgaa gacatcaaaa gcaattcaat gactgttggg aaatacaaca 180  
tcgataatcc tcacgaaggt caagctttac cacaaactca caaaatttcc gtcaaggtga 240  
cgtctaattc cggtacaat taccatcacg cggaacaagt agattcagga caattcgcac 300  
tctcggctgt tgaagcaagg tgattacatg ggctgggtca ctgctgttga tnaaaagccc 360  
tgaaggttcn ttggagtaat tgactttgag tgggaagact ggggggtcaa ccaaagccg 420  
gggtaaagtt gctaaaaaga atccagtcca agtttat 457

<210> 628  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-15-Q1-B1-C6  
<400> 628

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gggacggcta atgtggtgcc tcaacctatg tgggcgggtg cgccaggagc tacgaatgga 180  
ggtagtgctg tctggatgct tccgatgagc gggtcgggtg ggcgggagca gatgcagcag 240  
cagcctgggc accaaatgtg ggcgtttaat ccagggaatt atccagttgg gacaggacga 300  
gtagtaactg caccaatggg gtcaatgatg ttgggaggtc aacagctagg attaggagtg 360  
gcagagggca acatggcggc tgcaatgcct ggcaattana agcgatggtt tgggccatga 420  
c 421

<210> 629  
<211> 380  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-15-Q1-B1-D1  
<400> 629

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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnaaccaag 180  
 cctcctccgt ccaccctaa acctcccacc aaacctcccc cgtccacacc taaacctccc 240  
 acgacnaagc ctctccgtc tactccgaaa caaccaccca cangcctccg gctacaacat 300  
 ggccaacnag aanaccaagg ncnatccaa cagttgttan aacggcnata caaccanc 360  
 gtcattagtc aacaagcanc 380

<210> 630  
 <211> 460  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-D10

<400> 630

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 cttgaatctg aatctgtggc tatatttggg gctcgggtgg gagcaggaag ggagggggat 180  
 attgtcaggg ttttaatgta cgtcagatga atagagcaac taatgttact ggtagtagaa 240  
 ggaggggggt tattctcagc gtccgcgtct ggggtatagta agggattgac cttctttttc 300  
 tctggtgata aagacgtana taggcccatt agagttgtcc cgtggaatca ctaccangtg 360  
 gttgaccaag agcctgangc tgancctgtt cttcancgtg attctattaa gaancgantt 420  
 tcccgggggt gccctgcttc cttnaattgt tttggggggc 460

<210> 631  
 <211> 460  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-D12

<400> 631

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gtacggccaa gatccgtcac gatccccatc aagtttcgcc acgtcttcat caccggtgga 180  
tcaagcggna tccgtctcgc tctcgtctcan cgtgccgtct ccgaaggcgc taaagtctcc 240  
atcctcgcctc gttcaactga aaagctcgcc gaagccaaac gatccatcca agctagctac 300  
cgggtgctgag gtcgccacgt tctctgcgga cgttcgcgat tatacgccgt ttcgaaagcn 360  
attgatgaat cgggaccgat tgangtggtg antgntaatc aangngtggt taatgggaaa 420  
gagcttnaaa aacaangtcc tgaangaagg taaatttatg 460

<210> 632  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABLI-15-Q1-B1-D3

<400> 632

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ggtgtaaaaa gacacagtac canaaggctt gcattacgtt ctgcaacaaa tgctgcagga 180  
agtgtctctg tgtgcctccg gggtactatg ggaacaaaca angtttgctc ctgctacaac 240  
aactggaaaa ctcaagaggg tggacaaaaa tgccttgaa aaaatctcnc ttcgntcccn 300  
ttttanaata aaanttttca actatnacta aatttccttt gatnaatgtt ttatntactn 360  
aatcctaang ttgtnatgtt angtcactcn gtttccggat ttgatccaaa tccctaaaaa 420  
a 421

<210> 633  
<211> 383  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABLI-17-Q1-B1-D6

<400> 633

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tgatgacatt cagagcttgg ttcttgggtc tgacctcttg tgttctgctc atctttctca 180  
 acacgttctt cacataccgt acgcagccac tcaccatctc agccatcctc atgcagatcg 240  
 ctgttttggc catcggcaag ttcattggctc ggactcttcc caccacttct cacaaccttc 300  
 ttgggtggag ttttaacctc aatcctgggtc cttttaacat caangnacat gtcaattaac 360  
 anncatcctt tggcaaattg ggg 383

<210> 634  
 <211> 449  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-17-Q1-B1-E1

<400> 634

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 aaccattcat ctccctacca accccaccaa aaccaaactg ctctctcgcc gtcacaagca 180  
 cgcgcctanc cggagccgtc ttctcttccc tcagctactc tgagccaagc tttagccatc 240  
 caaacagatc gtcagctcg ctgcaagcaa acgccagtag cgacaaccgt ggcttagctc 300  
 ttctcttccc catcgtccca gccattgcat ggggtcctta aacatcctcc aancaagctn 360  
 tttaccaagt tcaacaaaga atgcnttgag aattaaangg tancctttgt tgggccaang 420  
 naattggngg gnggggcctt ggcaccgtc 449

<210> 635  
 <211> 455  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-17-Q1-B1-E2

<400> 635

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 gcgattacgt cgatgtgaag gtgaatggtg cgatccacaa gggatatgcct cacaagttct 180



accatggctcg tactggctcgt atctggaacg tcaccaagcg cgccgctcggg gttgaagtca 240  
 acaaacagat tgggaacagg atcataagga agaggattca tgttcgtgtg gagcatgtgc 300  
 agcagtcaag atgtgccnan gaattcaaag ctgaggaaaag aaagaaaaac gatgaactca 360  
 aaggctgcaa nccaaaagcc aattgggtgag aacatcanca accaaagnga ncaacctaaa 420  
 agggncctaa accaagggttt cagggncctaa gggaa 455

<210> 636  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-17-Q1-B1-E7  
 <400> 636

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 ctcccatcga ctcacctacc tctcaagcct cgtcgccggc aaacccaaac ccacctccgt 300  
 ccccgctgcc tccggtaatc aagctccaca tcggaaacta cgtgggtccga gccaaaactc 360  
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 ggggtcccttg cccnngg 437

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 tgcattgatt gaatatgcac gtttaactgg aaagccattt aggggttttta gtttagatac 180

aggagatta aacctgaaa cgtacaggct ctttgacgca gtcgagaagc agtacgggat 240  
 tcgaattgag tacatgtttc ctgatgcagt tgagggtcaa gctttaagtg aggaacaaag 300  
 ggtttgttct cattctaaga agatgggtca tcaaagagtg ttgcccgtgt gaaggaaagt 360  
 tagacctttg cgtcctgccc ctaangggcn ttaaagcntn gnttacaagg gcaaaangga 420  
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 <212> DNA  
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 ccgtcttcgt cgctaaattc ttcggccgtg ctggtctcat gtcctttatc tccgctgttc 180  
 cggattctca acgtcctgct ttgtttcagt cgttgctcta cgaagcttgt ggaagaactg 240  
 tcaatccagt taacggagca atcggaatgt tatggactgg aaactggaat atctgtcaag 300  
 cggctgttga aacagtgctt cgcgggggtt ctttaagacc gattccggag cntctcaatc 360  
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 ggaattccaa ttccacattt tcaagaaata aggaggcaaa aatgttcata tatgaattgg 240

aattatttgt tttcttatta ggcctatcct gaagccaaag gaaatgagat cggaattcct 300  
 cggggaattc caattccaca ttttcaagaa ataaggaggc aaaaatgttc atatatgaat 360  
 tggaattatt tgttttenta atangcctat cccgaagcca aagggaatg anatttggga 420  
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<210> 640  
 <211> 425  
 <212> DNA  
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 ctcaaattcg acagaatcaa gtactgggta tctgttgagg ctcaaccaac agacacagtg 240  
 gaaagcatgc ttttcagggc cggtttgata ncaccaaagc ctatggtagt gggtcggttc 300  
 gaaaaatggg cagaatctac gagccaacat gtttcacca ttacangtga aatcntgaac 360  
 taaaaantgt tgatgcgtn agcaanaaan aacnttttg ggccggtttt aaaaggattt 420  
 aagtt 425

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 atcgtgtgaa atctgtgtca atgtcaaagt ttacttctaa agaagttgaa gtacttcaaa 180  
 atggtggtaa tcagcgcgcc cgagaaatat atttgaaaaa ctgggaccac caacgacaga 240

ggcttccaga aaacagtaat gctgagagag ttcgcgaatt tatcaaaaat gtgtatgtgc 300  
 aaaagaaata tgcagggcgca aatgatgcgg gcaagccctt cgaaaagata ncaggacaag 360  
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 c 421

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 <223> Clone ID: ARABLI-17-Q1-B1-G3  
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 ctgttttggc tgtgacggat gatgtggtgt tacctgttag ctctgtttta gctataatga 180  
 aagagcttgg aaaggaagtg attgagagtt ttgatcctct gattattact caagcatcca 240  
 caataaatca gtttcctttg gatgcttctt ctgtggaggc ggtattancc atttccaaaa 300  
 catctgattt cccaaagtga taaaatatgt ggtgaattct caagaaacct tgaaacctgg 360  
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<210> 643  
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 <212> DNA  
 <213> Arabidopsis thaliana  
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 ctctctttat cctctccgtt tggcaaatgt tcaatgatgg tggtcctgca gctaaagaat 180  
 tggctccaaa gcttgatttg gttaaggcac atttatcttc tagattagga gtaacattgc 240  
 ccaaaaataga ggtgagacaa gtcgttgcta ctattattgc cctgaaagga gtcggaggct 300

tactctttgt tatcggaac accttcggtg cttancttcc ggcttcctac tggtggtttt 360  
 cggctctaataat ccnaagaat tccaaaacta nngncctcaa gggangtnaa ttnccccctt 420  
 ccggttaaaa aatttctgg 439

<210> 644  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-17-Q1-B1-G6

<400> 644

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 cagcaccaac cactcgtgtt cggcatcgga agcgaacag cgatgttggt gcaggggcag 180  
 gcaaaccaaa tggaaaccat ttacttgtca atgacagcaa aaaatacaaa tcgtttctca 240  
 ttcgagcata ctccactttc tggatgatag gtgggttttgc tcttatagtt tacctgggtc 300  
 atctctacat tacagccatg gtggttggtta ttcagatatt catggnacga gaacttttta 360  
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 gggaatttct ttttaana 438

<210> 645  
 <211> 400  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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 tctttgctat tggatgctcg catatgtctac cttggcatgc caatcgtacc tgcagttact 240  
 gagttactcg ttgctcaatt tatgtgggta gactatgata acccaacaaa gcccatctac 300

ttatatataa attcaccggy gaccagaat gagaagatgg aaactgttgg atnagaaaca 360  
gaggnttatg ccataacca tacnaattcc taatgccaat 400

<210> 646  
<211> 439  
<212> DNA  
<213> Arabidopsis thaliana  
  
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tgtaagaaaa gcaatgtaat aaagcatcaa tacagattca ttcagaataa ttagataaat 180  
ctgttccgaa aacaaaaaaaa atttaagagc cttgagccaa taaaaactaa gaaaattgac 240  
tcaaaaaaaa ataaaaaaaa tgaaattccc gatttcatat aagagctcca ttgtagaatt 300  
cgggcctaatt gattaatcaa gaagcgatgg gaacgacggg aaccatgaat atagagggat 360  
ccaattggaa aattaatcta anaantcaat tgggcaangg ttgngggata aacccannnt 420  
tattaccaat cctaatttt 439

<210> 647  
<211> 438  
<212> DNA  
<213> Arabidopsis thaliana  
  
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aggctgcgtt ttccctgagc tattggctag gaacggagtg aanttcggag aagcggtttg 180  
gttcaaggct ggttcacaga tcttcagcga cggangattg gactacttg gcaacccgag 240  
cttgggtccac gctcagagca tcttaaccat ttgggctact caagttatcc tcatgggaac 300  
tgttgaaggc taaaaantcc cccggagatn gtccaattgg gagaaagcag aggacttgcc 360

ttaaccaagt tgggagcttc nacccaattg ggccctcgcta acggaccccc aagggnnttcc 420  
ccggatttaa aggtaang 438

<210> 648  
<211> 381  
<212> DNA  
<213> Arabidopsis thaliana  
  
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tgagaccaac atgctctccg acggatacaa tgttggcggt ggggttggtg ctgagattat 180  
cggcactttt gtctcgtct acaccgtctt ctccgtacc gaccctaagc gaaatgcccg 240  
tgactctcac attcctgtat tagcaccatt gccaatgga tttccgtgt tcatggttca 300  
tttagccaca attccaatta ctgggcaccg gaataaaccc ggctangagt tttgganctg 360  
ccgtcatcca naacaatcaa a 381

<210> 649  
<211> 155  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABL1-032-Q1-E1-D10  
  
<400> 649

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atgaacaatg gagaagacaa gcacaacctt caaaa 155

<210> 650  
<211> 300  
<212> DNA  
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<400> 650

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catttgtttg aagagtacaa cgctaaacag aacacacaaa ataaaatcaa gagggaaact 120  
aaaccaaaaa ctaatttaag ttcatgaaa aatggagaaa acaagcacia ctttcaaaag 180  
ccaataaccc ttattaatac tgatatttgg tcaacttcat cagaagacca atatctcaaa 240  
ctgttccact ctgcaccac agaccagcac aaaatcacia gtagatccga acctgaaccg 300

<210> 651  
<211> 320  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-025-Q1-B1-C5

<400> 651

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gactacttca gcattccaat tgccgggacca tacaatctc atcaccagag gtacttgata 180  
gagatagaga gtcgacttcg cggttcatgt tcggatccac atgtagtttt gtgttggggt 240  
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<210> 652  
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<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-01-Q1-E1-G6

<400> 652

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tgaaaaatgg agaaaacaag cacaaccttc aaaagccaat aacccttatt aatactgata 180  
tttggtcaac ttcatcagaa gaccaatatc tcaaactgtt ccactctccc accacaaccc 240  
aacacaaaac cacaagtaga tccgaacctg aaccgctttg tcgactctct ctctctctca 300  
gtacctg 307



<210> 653  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABL1-032-Q1-B1-D10

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tcatgaactt gggttgtgcc actggtcacc caagtttcgt gatgtcgtgc acgttcacca 180
accaggtgat tgcccagctc gagctctgga acgacaaagc aagcggatag taccagaaga 240
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cttgagacca ggcg 314
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<210> 654  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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ctgactacgt cagcattcca attgagggac catacaagcc tcctcactac aggtactgag 180
agagagagag agtcgacaaa gcgggtcagg ttcggatcta cttgtgggtt tgtgttgggt 240
tgtggtggga gagtgaaca gtttgagata ttggtcttct gatgaagttg accaaatatt 300
agtattaata agggttattg gcttttgaag gttgtgcttg ttttctccat ttttcaagan 360
acttaaatt 368
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<210> 655  
 <211> 361  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABL1-021-Q1-B1-H2

<400> 655

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tgctgctgcc atgaagactg ctgggtgctag agtcattgtg actgagattg atcccatctg 180  
tgcccttcaa gctttgatgg aaggacttca ggttcttacc cttgaggatg ttgtctcaga 240  
agctgatata tttgtcacca ccaccggtaa caaagacatc atcatggctg accacatgac 300  
gaagatgaag aacaacgcta ttgtgtgcaa cattgggtcac tttgacaatg agattgacat 360  
g 361

<210> 656

<211> 378

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABLI-06-Q1-B1-C9

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gatgttggaag agggttgtgc tgctgccatg aagactgctg gtgctagagt cattgtgact 180  
gagattgata ccatctgtgc cttcaagct ttgatggaag gacttcaggt tcttaccctt 240  
gaggatgttg tctcagaagc tgatatcttt gtcaccacca ccggaataaa agacatcatc 300  
atggctcgacc acatgaggaa gatgaagaac aacgctattg tgtgcaacat tggtcacttt 360  
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<210> 657

<211> 400

<212> DNA

<213> Arabidopsis thaliana

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 tgttaaagct gaggagatct ttgagaagac tgggtcaagtt cctgaccta cttctactga 240  
 taaccctgag tttcagatcg tggtgtctat tatcaaggaa ggtcttcaag ttgaccta 300  
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 cccagagacc aaggctggaa tcattgtctt ggctgagggc cgtctgatga acttgggttg 180  
 tgccactggt cacccaagtt tcgtgatgtc ttgctctttc accaaccagg tgattgcca 240  
 gctcgagctc tggaacgaga aagcaagcgg aaagtacgag aagaaggtgt acgttcttcc 300  
 caagcatttg gatgagaagg ttgcattact tcaactgggc aagcttggag ccaggcttac 360  
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 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-023-Q1-B1-D2  
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 aagagtcacc aacgaggggtg tccagaaggc tgctgctgct ttgaagggat ctgaccaccg 180  
 tcgtgcaacc aatgttagtg ctaggctaga tgctcagcag aagaagctca atctcccaat 240

cctaccaacc acaaccattg gatccttccc acagactgta aagctcagga gagttcgtcg 300  
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 cacaaaattt gtt 373

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 <212> DNA  
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 ccaggcacga aacctgttac cagatcgctt tggccatcaa ggacgaagtc gaggatcttg 180  
 agaaagggtgg aatcgggtgct attcagattg atgaggctgc acttagagaa ggactaccac 240  
 tcaggaaatc cgagcatgct ttctacttgg actgggccgt tcactccttc agaatcacca 300  
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 acatcataca ctccatcatc gaca 384

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 <213> Arabidopsis thaliana  
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 ggaatttatt tccggccttt tctgcttgg gttaccagtt ttctaatgt taatcccttt 180  
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<210> 662  
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<213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-025-Q1-B1-A12  
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 ttcctttccc tgtaaagatt ggttttactg cttgcattca tcgtcgtcgg tggctgtttc 180  
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 catctgggct tgcagagcgt agcctacatg atgggcaatg atgatgatag taacaattgg 240  
 catgtctatg ctgcctctgc cgatgactct agcaagtgca acaacaatgt ctatacactc 300  
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 <211> 297  
 <212> DNA  
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 aaggggtttc tggaacaag gagttcataa ttcgcgatct tgatctatcg atcttcattt 180  
 atatataaaa gcgtgaatga gattatgatg gagtcgaaag gtggtaaaaa gaagtccagc 240

agtagtagtt ccttatttta cgaagctcnc ctcggttaca gcattgaaga cgttcgt 297

<210> 665  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABL1-022-Q1-B1-D5

<400> 665

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 gtggatcgcc tagatctacc ttgaagtgtg aatggagcag caacaatagc tgcagcagcg 180  
 aggacgagaa ggacgaggga atctagcaga atttttcttc ctaataacta ttttcgagct 240  
 ttctgttttt gttctttctt tttaaaaaac ttattaagtt cttatgaata atgacttggt 300  
 aagtttgagt tcgtctcctt cacaagcaag ttgtattggt gt 342

<210> 666  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABLI-14-Q1-B1-C3

<400> 666

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 tctctctact acaagtctg tcgctcacac aacaaggcga gatggcctta tctgcaatcg 180  
 gtttcgaagg ttacgagaaa cggctcgagg tgactttctt tgagccaagc atctttcaag 240  
 actccaaggg actgggactc cgtgctctga ccaagtcca gcttgatgaa attcttacac 300  
 ctgctgcatg cagcatcgtt tcctctctct ccaacgatca attggactct tacgtactct 360  
 ctgagtcacg cttctttgtc tacccttaca aagtcacat caagac 406

<210> 667  
 <211> 236  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABLI-10-Q1-B1-F5

<400> 667

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ggtttgcctc aactgtgtga catgcctacc tcacatcacc tgtgaagtcg gcatcccact 180  
caagtgcggg acaccgcagg cttaaattta cctactctgt ttctgtcttc attcca 236

<210> 668

<211> 406

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABLI-09-Q1-B1-C5

<400> 668

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cttcttcgag atctgatcgc cgaatctcag aatctcccat cgaagcagaa tggagacttt 120  
tctattcaca tctgagtctg taaacgaggg acaccagac aagctctgtg accagatctc 180  
tgatgcagtc ctgatgcct gccttgaaca agaccctgac agcaaagttg cttgtgagac 240  
atgcaccaag accaactggt tcatggctct tgggtgagatc actaccaagg ctactgttga 300  
ctacgagaag attgtccgtg acacctgtcg cgccattgga attgtctctg aagatggttg 360  
tcttgatgct gacaaatgca aagtcctagt caacattgag caacag 406

<210> 669

<211> 399

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABLI-11-Q1-B1-F10

<400> 669

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cttcttcgag atctgatcgc cgaatctcat aatctcccat cgaagcagaa tggagacttt 120  
tctattcaca tctgagtctg taaacgaggg acaccagac aagctctgtg accagatctc 180  
tgatgcagtc ctgatgcct gccttgaaca agaccctgac agcaaagttg cttgtgagac 240

atgcaccaag accaacaatgg tcatggtctt tggtagatc actaccaagg ctactgttga 300  
ctacgagaag attgtccgtg acacctgtcg cgccattgga tttgtctctg atgaagttgg 360  
tcttgatgct gacaaatgca aagtcctagt caacattga 399

<210> 670  
<211> 406  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-023-Q1-B1-E9

<400> 670

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gccattggag tcctgagcc attgtctgtc tttgtggaca cttatgagac tggattgatt 120  
ccagacaagg agatactaaa gattgtgaag gagagcttcg acttcagacc aggaatgatg 180  
acaattaacc ttgacctaaa gagaggagga aacggaaggt tcttgaaaac tgcggcttac 240  
ggacactttg gaagagacga ccctgacttc acctgngaag tcgtcaagcc actcaagtgg 300  
gacanacctc aagcttaaat ttttactact ctgtttccgt cntcaatcca caaaccaatt 360  
atctggtcaa ttttttaatt ccccggtttt ggggggtaat gggttt 406

<210> 671  
<211> 398  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-02-Q1-B1-F10

<400> 671

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aaaatggaat cttttttggt cacatctgaa tccgtcaacg agggacatcc cgacaagctt 120  
tgtgatcaga tctccgacgc tctcctcgat gcttgccctg aacaagaccc tgagagcaaa 180  
gttgcttgtg agacttgtac caagactaac atggatcatg tttttggaga aatcaccacc 240  
aaggctaacg ttgattacga gcagattgtt cgtaaaacat gccgtgagat tggattcgtc 300  
tctgctgacg ttggtctaga tgctgacaat tgcaagggtc tgggtaacat tgagcaacag 360



agtcttgaca ttgcacaagg tggtcatggt catctcac

398

<210> 672

<211> 405

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-01-Q1-B2-F4

<400> 672

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aaaatggaat cttttttggt cacatctgaa tccgtcaacg agggacatcc cgacaagctt 120  
tgtgatcaga tctccgacgc tatectcgat gcttgccctg aacaagaccc tgagagcaaa 180  
gttgcttggt agacttgtag caagactaac atgggtcatgg tttttggaga aatcaccacc 240  
aaggctaacg ttgattacga gcagattggt cgtaaaacat gccgtgagat tggattcgtc 300  
tctgctgacg ttggtctaga tgctgacaat tgcaagggtc tggttaacat tgagcaacag 360  
agtcttgaca ttgcacaagg tggtcatggt catctcacca agaag 405

<210> 673

<211> 381

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-024-Q1-B1-G8

<400> 673

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actcaagtca ctattgagta catcaacgaa agcggagcca tggttcctgt acgtgtccac 120  
actgttctca tctcaacaca gcatgacgag actgtgacta acgatgagat cgcagctgat 180  
cttaaggagc atgtgatcaa gccagtgatc ccagagaaat accttgatga gaaaaccatc 240  
ttccatctca acccatctgg tcgttttggt atcggagggtc ctcatggaga tgcagggtt 300  
accggccgta agatcatcat cgatacttat ggtgggtggg gtgcacacgg aggtgggtgt 360  
ttctctggaa aggaccaac c 381

<210> 674

<211> 357

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-01-Q1-E1-F4

<400> 674

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aaaatgaata aaccagctc aggggtgaaa ctaaagaggc agaaagagcc taaaatacag 120  
agaacaagac tgattctgga cagaagtga acagaggctg acaggtttca agcttggacc 180  
ttgttagact tgagtggctt gactacctc cagggtgaaat cagcatcgtc ccttccaaag 240  
tgaccatagg cagcagtctt caagaaccta ccattacctc ctctcttcag atccaagtta 300  
atggagatca tacctggcct gaaatcaaaa ctctccttca aaatctcaaa aatctcc 357

<210> 675

<211> 353

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-02-Q1-E1-F10

<400> 675

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acatattatg aatttaactt tcttagcaca agaataccat ataaataatt atataaatc 120  
ccagctgctt agcttttttc ttcaaagttg aaaacaaaat gaataaacc atctcagagt 180  
tgaaactaaa gaggcagaaa gagcctaaaa tacagagaac aagactgatt ctggacagaa 240  
gtgaaacaga ggctgacagg tttcaagctt ggaccttggt agacttgagt ggcttgacta 300  
cctcccaggt gaaatcagca tcgtcccttc caaagtgacc ataggcagca gtc 353

<210> 676

<211> 427

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABLI-15-Q1-B1-H9

<400> 676

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agagatatatc tttcttttga ggatcagatc gtgacagggt ttagctcaag gagaggatt 120

agatccgtac tttgtgataa acttttctcaa gggtgagaaa aagaagaaga aggtgagaca 180  
 tgtgaaggca aggctttgag gatgtctttt acaggaactc aacagaaatg caaggcttgt 240  
 gagaagactg tttatgctgt tgagcttctc tctgctgatg gagttggata tcacaagtct 300  
 tgcttcaaat gcactcactg caaaagcagg cttcagctga gtagttactc atcaatggca 360  
 ggtgtattgt cctgtaagcc tcattttgag cagctcttta atgagagtgg cagtttcaac 420  
 aacaact 427

<210> 677  
 <211> 286  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABL1-029-Q1-B1-C2

<400> 677

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 aaatgcaagg cttgtgagaa gactgtttat gctgttgagc ttctctctgc tgatggagt 180  
 ggatatacaca agtcttgctt caaatgcact cactgcaaaa gcaggcttca gctgagtagt 240  
 tactcatcaa tggaagggtg tttgtactgt aaacctcatt ttgagc 286

<210> 678  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABL1-022-Q1-B1-H10

<400> 678

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 cttgttggtta aatacgggtcc aagaaactgg acagtgatta gcaaacttat tcccggtaga 180  
 tcggggaaat cgtgtcgttt acggtggtgc aaccagcttt cgccgcaagt tgagcatcgg 240  
 ccgttttcgg ctgaggaaga cgagacgac gcacgtgctc acgctcagtt cggttaataaa 300  
 tgggcgacga ttgctcgtct tctcaacggt cgtacggaca acgccgtgaa gaatcactgg 360

aactcgacgc tcaagaggaa atgcggcggt tacgaccatc ggggtta

407

<210> 679

<211> 401

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-022-Q1-B1-D1

<400> 679

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gctgatagga tcaaaggtcc atggagtcct gaagaagacg agcagcttcg taggcttggt 120  
gttaaatacg gtccaagaaa ctggacagtg attagcaaatt ctattcccgg tagatcgggg 180  
aaatcgtgtc gtttacggtg gtgcaaccag ctttcgccgc aagttgagca tcggccggtt 240  
tcggctgagg aagacgagac gatcgacgt gctcacgtc agttcggtta taaatgggag 300  
acgattgtc gtcttctcaa cggtcgtacg gacaacgccg tgaagaatca ctggaactcg 360  
acgctcaaga agaaatgcgg cggttacgaa catcgggggtt a 401

<210> 680

<211> 365

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-019-Q1-B1-G3

<400> 680

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aatacgggtcc aagaaactgg acagtgatta gcaaatttat tcccggtaga tcgggggaaat 180  
cgtgtcgttt acggtggtgc aaccagcttt cgccgcaagt tgagcatcgg ccgttttcgg 240  
ctgaggaaga cgagacgac gcacgtgctc acgctcagtt cggttaataaa tgggcgacga 300  
ttgctcgtct tctcaacggt cgtacggaca acgccgtgaa gaatcactgg aactcgacgc 360  
tcaag 365

<210> 681

<211> 377

<212> DNA

<213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-02-Q1-E1-G10  
 <400> 681  
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 atggatccaa tagaaacgga gaacataaat cagaaaacca aaatctttgc ctagatataa 120  
 gagactttgc gatgacgaga gcatcattac tgactagcgc caagccactt ggtgaagtta 180  
 tcgaactcgg tgtagtcaact gtctgaaatc atagtctgat accaagcctt gcctgctgct 240  
 ttgatecgtt gggcctcctc cttagtgacg actttcctct tcttctcgag cctctccttc 300  
 ttagecctta cccttgaagc ttcagccaac agagacattc tctttgcggt cttagcataa 360  
 ggattcaact tgaacat 377

<210> 682  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABL1-033-Q1-B1-A7  
 <400> 682  
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 tacaatttga cagctcaatg actgaactct ctggagagcc atgtgaagac cagtgtgtcc 180  
 atcaggggac acctgcacac ttacagggtc tgtgacaatg tctggacctt catattacag 240  
 gacgcaatgt tcaagagtga cgatcgtcaa gagaatgtga cccgggtgaa gatagtggca 300  
 tgtgattcga agctgctcac acagtgaaga tgcaaattgt ctgcaggga tttaccttcc 360  
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<210> 683  
 <211> 387  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABLI-12-Q1-B1-C2  
 <400> 683

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ggcatgtgac aaaacagttt atcttgtcga caagttaacc gccgataacc ggggccacca 120  
caaagcttgt ttccgatgtc accattgcaa aggaactctc aagcttagca attacaactc 180  
ctttgaagga gttctctact gcagaccaca ttctgatcaa aacttcaaga gaactggaag 240  
tcttgagaaa agcttcgaag ggacacccaa gattgggaaa cctgataggc ctttgagggg 300  
agagagacct gctggaacca aagtttcgaa tatgtttggt ggaacacgag agaaatgcgt 360  
tggttgcgac aaaaccgtgt atccaat 387

<210> 684  
<211> 392  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABL1-031-Q1-B1-E8  
<400> 684

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atatcttcga tttccttggt gatattgttc ctagggaaga gatcaaggaa gaggaagatg 120  
cagcatcggc tcttggtgga ggaggtatgg ttgctcccgc cgcgagcggg gttccttatt 180  
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attcagctgg tgggtggtgat gatgtgtctt atggaagtgg aggaagtagc ggccatggta 360  
atctcgatag ccaagggtga gctatggaac ca 392

<210> 685  
<211> 382  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABLI-14-Q1-B1-A11  
<400> 685

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gaatatggag aggattaaag gtccatggag tccagaagaa gatgatctgt tgcagaggct 180

tggtcagaaa catggtccga ggaactggtc ttgattagc aaatcaatcc ctggacgttc 240  
 cggcaaattct tgtcgtctcc ggtggtgtaa ccagctatct cgggaggtag agcaccgtgc 300  
 tttttcgtag gaagaagacg agacgattat tcgagctcac gtcgggtttg gtaacaagtg 360  
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<210> 686  
 <211> 393  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-047-Q1-E1-C4  
 <400> 686

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 tgtagaagac aaaaaacgag agagagagag agaagaatct gaaaaacaaa aatacaacaa 180  
 aagtttggty tgcaataaca aatagtaata catgtttttg gtaaagaaga gcattgatag 240  
 agagaaagat ttacttcttc taaggtttat aaaagagtgt tttttgagtc catgtaatca 300  
 aatccagtct tcttggaaga agcttatttc tactactcat cnaangngct caagaacccn 360  
 ccaaaggaaa ccagctccaa atggcagtn cca 393

<210> 687  
 <211> 342  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-047-Q1-E1-C5  
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 agctgggaga taaggccct tcagtgccaa taatacattc atagttatga tgaacaatga 120  
 gcatcactact aaaaagtgtg aaaactatgg tttctgagtt ttgaaaatgc tacaagaata 180  
 tcataagatg agggagggttc atatcactta agtaactgtt gcagttatct cacaaaagtg 240  
 ttgtcgttgt cgcgcggttt tancggatta ttttaaanta caanagacgc tgattcatca 300

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342

<210> 688  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-047-Q1-E1-B9

<400> 688

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ttctacaaac ttggaaaaga tggaaactgt aatcgtggaa gactccttgc ttattgtaac 180  
taaatacgaac acagagacta agtaaaatga cttagtgttg ggaatacttt ggattgggca 240  
tgcgagnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 300  
nnnngcataa atcgtncgtc cntgggtgat atctcgggta agcaantttg tccaccagnc 360  
ttcngagtcn tccagcagcg gnaaacaan cgccgggaga agttcgcnc 410

<210> 689  
<211> 392  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-047-Q1-E1-C6

<400> 689

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cacttcacgc aactttacct tatgtgtata aaatatatat ttttgggtta agaagaacaa 180  
gctatgatca gaatcaagga aggtagagac cactctgac ttggtcagac gacgtccatt 240  
gactttgact ccagtatgca tgatcaacgg tactgggtta atcaaacagt gtttgatctc 300  
caccgccact tcccacatcc aacgggttca aaaccatan tcggntncga aanatcntcc 360  
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<210> 690



<211> 284  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: ARABL1-047-Q1-E1-C7  
  
 <400> 690  
  
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 gaagtgttaa gtattcatgt tttcttgaaa aatttccac ctttttcccc aattccggtc 180  
 cctgtaaggc ttgaagagag atgggatctg gtgtctggtc tccactgcaa ttctactaat 240  
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<210> 691  
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 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 gggaccagtc gatctctttg tatcttttct ctccatttct cgaccgaaca agtccataag 180  
 tgtcaagctc aagcatatca tctcaaaacc tggacaagac tcatggtaca accaaaaaga 240  
 cacaaaaaca aactttgatg caacaaagat tgcacatgaa tacaatcac gagattaata 300  
 aaacacaaac tatatcactt cttanaatgt ccttttagtt naacgagtt 349

<210> 692  
 <211> 358  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-047-Q1-E1-F1  
  
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actaactatc gccaatgaac gaaacccttg aaaaccgaag acaacaagag attacatctt 120  
tagcatttga cacgaaacca aaagaaaaaa aaaaaaaga gtttgaatca tgttgtaaac 180  
attantattg ngtaattttg cnccatcatc taaagaagaa cctcaagagt aaagaaattc 240  
gtaactcgaa aatgggggtt ggtttgctc anacggagat accataattg ntgatcttgg 300  
ttcacttcct ttggcaaagc gtttcncnc ntgcttact tcaacanagc acggcttc 358

<210> 693  
<211> 386  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-047-Q1-E1-F12

<400> 693

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agcattttt gcagcgaaat tacgagcagt ttctttcttg acaggatggg gaccacatcc 180  
aacaactta tcctcaatat ggaaacaata ggtttgattt tcttcccaag tgtctttgga 240  
cgtcaatttc aagttcctct tctgacacat ctcatlgagt tctgtcattg gatggctctt 300  
cattttgtct aaatgtatta ttgggtccaa caatggtttt atcaccttcc agacgggtctc 360  
gggtggagtt gcaatccatg aagata 386

<210> 694  
<211> 398  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-047-Q1-E1-F7

<400> 694

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acaatggagt acagaaccaa agtagtatca acaaaccac aatatgacct gaaacaaaag 120  
ctaaacaagc agcatgatga agaccaaatg tattgtcggc taatttgaaa cgatcaagac 180  
tagttgcagg ctctgggatac catcacgacc agcataacga tgatggatag caggaccgaa 240  
gtggtcagct tttcctcgag ccaattgttg aatttggcat ctttccctt gttgttaaca 300

ccatcaccat tgtaacaatt gaagagctcg gtcacgacct ttgttatttt cacaacact 360  
tccgtggggc ctaaacantg ggttgtcnaa tacccaac 398

<210> 695  
<211> 328  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-047-Q1-E1-G1  
  
<400> 695

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aatccttgag aaagaaaaaa gaagcagata tgaagatttc acaatgcatc agaagctttt 120  
tatctacatt atataattac tccctcanaa gcttccttag tagacttcaa cattccactg 180  
ttcactcttc ttcaattgct tcttgtactc caaccaatcg atcccatctt tagcagcaag 240  
cgagaccata atgtcatcga tacccttctc cataccctta agaccacaca tgtaaacaaa 300  
ggtgttgtct ttcttcagca actcncac 328

<210> 696  
<211> 403  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-047-Q1-E1-G12  
  
<400> 696

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caatgattga gtgtctttgt tgtaagaac aaaacacaca caatggttct caaaatacaa 120  
caactgatct gtcacgact gcaaaatctt tcacacttga agaagactca attctgtttg 180  
tagctttctt ggctctttca tcccaatttg taaaaatagt gacgaggcca angacaaaa 240  
acttgaacaa cgagggcaca tatgattcca agccaaagcc cccgaccacc aacgtgaaag 300  
tgaaaagcaa gtaacaatcc tgaaggaact ccaacaagga taatatggaa ccaagattta 360  
aatgattggg cccaaacttc tgnatccaa aatctctaac caa 403

<210> 697  
 <211> 365  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-047-Q1-E1-G2

<400> 697

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aagacacacc aaatcactac tcatcacctt aataaaacat atacatccca actgaagaaa 120
agcctcgaca aaaagactct ctttaagaac acatttatac ggtatggcaa caactgaaac 180
cgaaccaaat ctccattgt tgcnattgca cagaanaatc aggttctctg ggactggtag 240
agctgctgct gttgatgacc tcaacaatgg ttgaacgagc ttttaccaca ntgctcatgt 300
ttgggcctaa actctgantc anattggcan acacnaatgc ctgctactgc aacgagcctt 360
gnaac 365
  
```

<210> 698  
 <211> 259  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-047-Q1-E1-G6

<400> 698

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aatctcagca gacagctcaa ttgcttggtt gaaaccattc tctcctccgt aagaaacatc 120
aaccacattc aatatcttag cttgaagacg aggatcaaac agttctgatt gacttagctc 180
ggtcttaaaa tccgctgaac cagcaagtat aagaccagag acattaggct gacncgtagc 240
tggattaatg taaaactga 259
  
```

<210> 699  
 <211> 391  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-047-Q1-E1-H11

<400> 699

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tgggccacgt actcctagat ccttagcatt cttgaacgtt cggattggta tgttgtcaac 120  
aaagaatacg atctggtaca tggtccaaag gattgagtaa gtgtgataag ccttagaagg 180  
atcaaaccag agatagattc gttgttctct gtttcccttt cctcctgtga atacatttgt 240  
ctgtaataata gctggttgtc ctgttctgtt tccaaggaac tcaaagtcta tctcgtcatg 300  
ctcattgttg gtagatgata agatagaaag ctgtgacaac tccggctgtg tcaccanctg 360  
ggaactttat gtgnaatacc aaaatgttca a 391

<210> 700

<211> 413

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-047-Q1-E1-H4

<400> 700

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cgaaatgctt tgatgaacaa tgcgatatta ttcttatgaa ctgtgtggtt ggatacatct 120  
ggattctgtt tctcagtagt cagctctcag ttcttagtta gctgtcgtg gatttggttg 180  
ttaggctcaa cagtactccg gtactgagag aaagtgcaac gacaccaagt gatgcctctg 240  
ttgatatgtg gaagccaaag aaatcaagga tcattctgac tcctatgaag ccaagaacaa 300  
ctgctattga tggctgcaag tattccagct cgtccattcc ttcagaaatc agtgtataag 360  
agagaacctt antccctaag gattgcaaaa gagaattaga agtccaagga caa 413

<210> 701

<211> 405

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-047-Q1-E1-H6

<400> 701

tttttttttt ttaaaacaaa taaaccagac catgtattgc ctattgccag ggtagactgg 60

ccggtcagga tttcgaaaac tggtatagta aacaattctg gacggaggcg aaacattaac 120  
aaagaactaa aaagacttgt ccttgacact cgattagaaa agaaaaaac agtctatgcg 180  
acacgtcaca gagcaaaacc cctatgtgag acagacagat agaaagatat gtaaagcccc 240  
agctgcaaaa cctgtaaatg gaagtaccaa accattctct cttctcactt gaagcacttg 300  
gcggtccaaga gagcctcacc ttcaaattggc tctgcgtctt caatcatccg ggctaacacg 360  
ctccttctgg ggetcaaccn gaaatttcaa cccttagtnc aatca 405

<210> 702  
<211> 401  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-047-Q1-E1-H8

<400> 702

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gacattgtca tttcttacia aacacgaata tgtttacaca ggggtgttaca atacgaanaa 120  
nccaatggta ncgaaagatg gaaatattgt acgatacaag agacataaaa acacatgaga 180  
tgatgatcac ctcaagtggaa cttgaggctg gtcaagacgt tgttgttgac gggatcagcc 240  
aagtgatcaa gcaggttctg ataaggtccc acaccgggtca ctagtccttg gataaagtaa 300  
ccgaggggatg gggagcatan ccagtctacc gtncttgacc ccntgagnt cnaaacccct 360  
tcaggtgncc ttcccnacct ttcccaaacc ccaaagnggg g 401

<210> 703  
<211> 388  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-046-Q1-E1-C3

<400> 703

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aatgtggaat tggaattccc cgaggaattc cgatctcatt tcctttggct tcaggatagg 120  
cctaataaga aaacaaataa ttccaattca tatatgaaca tttttgcctc cttatttctt 180

gaaaatgtgg aattggaatt ccccgaggaa ttccgatctc atttcctttg gcttcaggat 240  
 angcctaata agaaaacaaa taattccaat tcatanatga acatttttgc ctccttattt 300  
 cttgaaaatg tgggnattggg attccccgagg ggattctnca agatcgacct gcaaggcaat 360  
 gcaaactttg tectncccc tttaggtg 388

<210> 704  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-046-Q1-E1-C5

<400> 704

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 attactaaca tactacaagt tgagaaacag taggaccaat gtacatttac tcacttgtag 120  
 gatgaaatat acatttgga acttacatga gaaaggccta aaatgttcat ttcttggaga 180  
 gcattttatc tatttggccg tttttgttgt acatttcac tatctttttg gcatatgatg 240  
 gcatgtgggt gtttgcctt tgctttcccc atttgcggtt tacgtacaaa tagtttctga 300  
 tggatatgta gtccaacgag taccgagcaa attctanacc cttaggacca accaaattta 360  
 ngatnaacnc aanaatgttt ccaacaaana gtggncgccg gntnaacnag acccttgacc 420  
 aaact 425

<210> 705  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-046-Q1-E1-C6

<400> 705

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 nnnnnnnnnn nggnacagca agaaaacata agggncanat tagtcatgac aaaaaacact 120  
 tgggtttaag ctttttgnta ngacttgcaa ggacacncaa caatagccac gcgaaagaaa 180  
 aataancaa aagaaaaaaa aaagagttga agaganaatc ngagacaaga agagctaata 240

cacatccact tcaataattc attcaccatt gtcaaacggt tacagctttc tacaacttca 300  
gctcgatcac gacttacaca tcatgcttca cngctgttgc cgetgggtatc caccaggctg 360  
ctggnanttt ccaaaagccg cccccagcan aaccaccgta gtagngtta 410

<210> 706  
<211> 409  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-046-Q1-E1-B8

<400> 706

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nnnnnncaag acnganatgc ttcattccat anaaagaaag aaaaaccatt acataaatTT 120  
agcaatgana taattgcana gaangtcnca tctaanagta tcgactacaa caacagcaac 180  
aacaacacg ttcaaagcaa aactcagaga ataaactaat cccagttttg cccctaccaa 240  
aagaatctac acanggactt agattctcca gtctcaatgt gtttcttctt cttctctatc 300  
ttctttcttg ggttacaata acaaaccctt cccaagctta nttacanana aancacaact 360  
ccgcaaattg ttgaacgggg tgctgcngnc ccttggaana nctccacgg 409

<210> 707  
<211> 430  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-046-Q1-E1-D2

<400> 707

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gtaaacaaag atccaactca atattactat aacanaaaca aacgcattac aaacttataa 120  
aaactccatt gatttaaatt atttcgttta acaaccatcg tcatataaag gttcaaggac 180  
atttggaatt tccaccacgt gtcttcatgt tggcgtaaca agatccacac ttctccttat 240  
taccgtaggt gcctggggga acacacttgc aagcggtagc agcacgtgac gcacgtcttc 300  
atacatcgt tctctctcga gtgttgccca cacctcgtcc cacataaagg cacgcaatct 360



atccngagtt cttacgggga ngttgtgttt ggnnngtttt gacangggcg ggcctgtnaa 420  
gtgggttaaa 430

<210> 708  
<211> 405  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-046-Q1-E1-E5

<400> 708

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caaaacatga gcagatagat tttgtatcta tgggaatcgt tacataatcc ataaataatt 120  
caaccataaa acgatgatct ctcaagattt aagtatccag atcttacgat tcattcagat 180  
gactgaaaca aaacccaaga atatttggtc gcatattatg aacacttgaa acagagcaac 240  
aagtagagca tttcacccat tatcacangt accatanata aanccaacca taagntagca 300  
aanccaaagg aagagtccta atccggaacc cancaggaaa aanccaacta ccaannggat 360  
ggaggnttca tcataantag gcaaaaaggt ggggtattng agaga 405

<210> 709  
<211> 480  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-046-Q1-E1-F3

<400> 709

ggngcgcgtc aaaagactca atcccnggtc gacnaccta ctattcngcg gccgnccttt 60  
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attgcaaagc aacttattat ttggtacatg ataagtaaaa cagtttcaac aacatattga 180  
tccgtgtaat ggacccaaac agatcaagct gagttaagtg gagctccaag ttcggtagag 240  
ccttcacggt tttgaaacac gatcacgtat agtgcataaa ttatccctgg gatgtatcct 300  
aagattgtca gcaccaagca aatcaagaac tctacagtgc aacagccacg tttgagacaa 360  
actccaagag gtggaagaag gatngccatt aagatntcgc agaaaacttc catgttgccc 420

gncaattttt caganaagtt gngtnaaaga aagatcctga atgttattct ggaattantg 480

<210> 710  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-046-Q1-E1-F8

<400> 710

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnncaccac accaattatt cgcataaata 120  
gtatagatat atcaaacgat ccaattcggg ttcagtttag aaaccgtgga tcttgatctg 180  
atccttctta gcaatcccag tttggaccaa gaactgagac actttcttcc tttgatcacc 240  
ttgaagctgg atgatcttgc ctagttcttt gtctgcaca acgttaccgt tgcagcagaa 300  
atctttcttc aaatccttga gaatcctctc gtagctgtac tctttcttaa gcccttgaac 360  
agtcgtcaag ctctttttcc cattcctcct gctgggattc gaatgtgaat 410

<210> 711  
<211> 429  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-046-Q1-E1-G1

<400> 711

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gcatagaaac aaagataggg aacatatgga taataaagag gtgaagtaat gtttttgttt 120  
gagattaaag aggtttcaaa caaagagatg ataaaacata ggaatctaac ttatttcatg 180  
gaagatccct atgtgaagaa gtcnnnnnnn nnnnnnnnnn nnnnnnnnnt aaaaccgagt 240  
ctgtgaggga tcaaaggaca caaactttca tcccattgca tatttctgag tccagcttct 300  
cgcagtagac tcatacnttg ccnctatcgg gttttgtaca tgtgaagcaa tctctggaac 360  
caatggatna tcngggtttg ggtccgttna caatgaagat atccgaaagc caaaaccttt 420  
ctagaatgn 429

<210> 712  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-046-Q1-E1-G7

<400> 712

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nncgaccnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnccc 60
ctctgaatta gattattaca tttccaacga ccatactaaa agaatacatg tataatatta 120
cctgaataga aaaataagaa aaatacncaa actattttaag tcagctcttt ttcttcccca 180
gcctgaatta agagctaact nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300
nnnnctaatt ataactactaa ttattaagac gacgcttgat tantcctcct cntcctcang 360
tcaancacaa cgaacgcca cgtaacgga acccctggcc tggcaagagc caactttggg 420
tnaagagca 429
  
```

<210> 713  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-046-Q1-E1-H2

<400> 713

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gcacaatcac tcttattgcc atattgtgtg agaaacaaaa tcatgagaaa gattctataa 120
tctcaagaag gcgttgaagc catgaactct aaaggaacca aagaaggaaa gagttctgta 180
aatctaaaac catgtcgttg attctttgtc ttcaagcagt ttgagcaact ggttcatcag 240
atgcttcaag cttttcgatt ctttcccaa cctcgactct aagaaaatcg gtaaccttca 300
ctggagaacc tacctccttg gacaaattat ccaccaagtg tcntaatgtt tataagcatc 360
gttcacaata aacttttgct ccattagaag caacttcttc aaaatactta cggagac 417
  
```

<210> 714

<211> 389  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-046-Q1-E1-H3

<400> 714

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnaa gttcaaagag ttgttataac atccgcaaga 60
ttttacatgt agtgtgatcc cttttttaaatt ttgttttggt tgtctagcat tattatataa 120
aatacgaatt aaaatcttac aaatcataag attgtttccc agtgaattta acctcaatgg 180
gactaacatt tttaccgatg gatctcatgt ttagtccaac accttctctt cctggattcg 240
ctttctctgg ataaactcca tctttcgggt gaagatattg aacctctccg ttagggaaca 300
ctctgtaaaa ctggttaagt atcttgtact ttgacctcaa cctcngtacc taaangccaa 360
cacgggntct tctccgccca ngtttcaat 389
```

<210> 715  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-046-Q1-E1-H5

<400> 715

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attcctgtaa tgtcactagc aatctcaaac aatcatgata catcatattt ctctcatgga 120
gccaaaatcc ccggctggtg gaaaaataat agtttgcgca agtgtgtatg attatttcta 180
ttgaggtgaa aaacaatcta aggttttctt tttactttta tttccaacac aaaattgatt 240
acgcataatg attccacatg caaagaattt taaataccgg gatttgatag tgaacttatg 300
ctgcgacaga ctgtttctcc tcgtaatccg tcaagcctta aaagcttcca atanccttgg 360
ccnagaactc ctggggaagc ctncaggtna agtccaaact ccaataaagc tttcccctgg 420
g 421
```

<210> 716  
 <211> 412  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-047-Q1-E1-A4

<400> 716

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn   60
nnnnnnnnnn nnnnnnggaa aaagcataga aacaaagata gggaacatat ggataataaa 120
gagggtgaagt aatgtttttg tttgagatta aagaggtttc aaacaaagag atgataaaac 180
ataggaatct aacttatttc atggaagatc cctatgtgaa gaagtcctct ctctttctct 240
ctctctctcn attaaaaccg agtcngtgag ggatcaaagg acacaaactt tcatccatt 300
gcatatttct gagtccagct tcncgcagta gacncaaat ttgccccaac cgggntttgg 360
ncanggganc aatcccctgg aaccaaattg gttanccggg ggttttgggg gc          412

```

<210> 717

<211> 404

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-047-Q1-E1-A7

<400> 717

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acataacatc gatcgagtaa gaataaaaac attggaactg gaatttaaata aaagcataga 120
cacaaaatca ttatataaaa tcaaactaac cctttttgtc taaccgaacc aacgtagcta 180
tgaactacac tgtagctnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240
nnnnnnnnnn nnnnnnnnnn nnnnnnnatg ttgttgtaga ccctagtagt ctccaccaan 300
accatctctt cattagtctt tttcttcntc ttcnttanna gaagttttgc tcctcaatct 360
cntggagcan gtttgaagan agtgaggggtg gcttccatgg ggaa          404

```

<210> 718

<211> 77

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-047-Q1-E1-B11

<400> 718

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aacagtattg tagaata 77

<210> 719

<211> 365

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-047-Q1-E1-B12

<400> 719

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acataagaac ttggtaaaag aaacaacacc acaaagcatt tataacaaca ttttcagaaa 120  
tttgaaatgc gcacccaaaa aaccttaaca atattggnaa atagggtcaa ggaagatagc 180  
agagacactt caacttgagc gaatgaggcc gtgcaagtaa gctccagtca tgacgagtga 240  
caccaccgac acaagtccag ccggtaccac tttcctcgtc cttangtaac gtgatcccat 300  
catccctgtc agtgccgncg accccanaat gccaatggan gattctaang aatggatttc 360  
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<210> 720

<211> 388

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-044-Q1-E1-G11

<400> 720

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gaatatttac agaacatgcc acacaatcat cacaanggct atgataaaat tccaagtaaa 180  
caacaatata gatgtccttc anaatcatct aagaccttcc caatgaatat ccagctttca 240  
tgaaaaagcg aattgtattg agtgaatctg agtcagccca ctgtcttgaa atcagaagag 300  
ccactcatct cctcaattct tggntttatt gggggaattt cataccttca agagagggcg 360

ttccaaacga ctaancaata tgtttcca

388

<210> 721  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-044-Q1-E1-G4  
  
<400> 721

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actgagatat acananagaa tactgattta atcataacaa atcgaaatat gaatatttgg 180  
ggattggtgg tataaacaaa tgcgaagacg gtttacggtt tctatgcact gaatccacgg 240  
ttaagegagc tccanngacc anttggcagt gtggtacaan cctgtgaagc tgcctcctcc 300  
atttgctcca tttgaatccc tgcattgcag atgtttgcna anaggactca atttccttga 360  
tacgttccga agacagncca ttcaaantgc ctccccgaaa gctctcacct gaattttaa 419

<210> 722  
<211> 407  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 722

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aacgantata taaagtanaa ataanagann atcgatcna acgtanacta ataggtattc 120  
aaaacagagt cgagcaagaa tctgttttag ggtcagacaa agccggtaac aaatattttc 180  
tcccattcag tcccttaacg ttataactcc caccggtcgt tgcattccaca ngtaactctc 240  
cagcanaacc aggatacgaa cctttcccat anactccagt acaagccgat ccancctcaa 300  
gcggtgccgt tttaggccct tggnaatanc catctccgaa cgggttcggt gccgtcgcaa 360  
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<210> 723

<211> 404  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-044-Q1-E1-F3

<400> 723

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aattacaaaa aacaagaaag cagaaaagat cagattcagc cataaacaca gacacgactc  120
tgattatcat ctcgaaagaa gaagaagaag agctttgttc cttctagaag cttcaccgtg  180
gctgatagat atgatgattc cggcgacaat taaagttcgg attcatgtac ttcttctgat  240
tatactttgg tgaacaagac gaaaccttcg atctataaat cttctctttc gtagactccg  300
ctatgttcaa aagcatcttc aaataactaa gccacatctg cttccggtaa ctgtatcagc  360
catggnttca acatcagacg atgcgattat cccctccgaa ctcc                               404
  
```

<210> 724  
 <211> 387  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-044-Q1-E1-G7

<400> 724

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gaacttacan aacgttctct aattganaca agatgaattc aaattaacca aggcctaggc  120
ttttanagac ttaagaagaa cctgaaactg ttgatcagat ttataggcca tttggatatt  180
cgaaacacac aacancgaaa accgccttca ctattccacg cattcgaagg cgccctggaa  240
tatgaaaaga aacctgttgt gttgcacaat ctatgtgtt tttggnactt gtttaatggc  300
nagaatcgga tgaagcagag gacggcttgt tgtcgccgcc gtgctcctct tgttgcctt  360
gaaancgtgc tggatataca aaaccgg                               387
  
```

<210> 725  
 <211> 383  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
<223> Clone ID: ARABL1-044-Q1-E1-H2

<400> 725

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cttgtcaaca aaaatgtann acaagttaaa taagtaaaca agatatttca gttttacacc 120
gtacactttt cccggccaaa tacagatgaa tcgccgtcac acanaacana gcaagacggc 180
gaacagagca aagaggagag aattctgtaa acgagccgag cctgaatatc cctgaggagg 240
agtatgatag taanacggca aataaggaac gatcggattc ngtggtggtg gtgtcccgta 300
attgccgtag taaggaggcg gataataacc aacgtnaccg tccgccgccg ttacggaggg 360
cgggtattaa cancaacggg act 383
```

<210> 726  
<211> 148  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-044-Q1-E1-H3

<400> 726

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gatcttttag aanattctaa nattcacaga gatgtnacca anctatacag ttgcatccag 120
aaaatccgac tcaagcgatt tcataagc 148
```

<210> 727  
<211> 399  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-044-Q1-E1-H9

<400> 727

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cctgttttga tgagcagatc acttagatgg gtctctatgg ctctcctcca agctcaactc 180
tcaggttgtc atatggatac actctcggtg taaatggaac cttagaagct ttgtcggttca 240
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aaacagcgag cagaccgaga ccaacaaaga accctaattcc gccactcaac catgcnaatg 300  
 cttcatactt tccgacggta tcagcaatcc gatctatgca aggctccgga aacgcagtcc 360  
 cgttgtcnca catnaagctc cgtccgttta ccgatanccg 399

<210> 728  
 <211> 459  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 728

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 cttttttttt ttttttttta agaaaagact tgggaaacct tatgaatgtt aaaagtgttg 120  
 ccacttcaat acaaacatcg tacttaaaaa tacaagtaac cacttgggcc attacaaagt 180  
 aaatcaacca tcatatatat atacacaatc acgatgaata atgttttttg agtatattaa 240  
 tgagaaagct tgtatgagat gatcaagatg atggcgagaa cgagagccac gattaccgat 300  
 gtaatgatcc atttgttccct agtcattctc cttgacatag ccgtcaacac cttcttgctc 360  
 ttgtcaatgg cgtcatccac accatgaagc ttgttgtgcg catgaaggan ggtttggcgt 420  
 tgctgactca aatcttggga caaantgaga tgccaacct 459

<210> 729  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-045-Q1-E1-A11  
 <400> 729

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 caacaaaaaa gacaagaaga aaatgcaact tcaactacaa ccaatctcgc aggattcgaa 120  
 cagacaagaa acatgggttc tctgctttta tctaattgtt atcttttctca aaaaaagacc 180  
 attccttaac gaccttcatg catcaaaggc cgggatnaaa cctagcgtgc accagcagtn 240  
 agtttttagtt actgtccgaa aacgccattt tccaataanc ctaaagctt naaagaacct 300

tccaagaaan ttgcaatttt tggngaataa tggaaagaag gtgtnaccgc tcaaaaattg 360  
 ggcctctngg gnggccaacc ctcanctcn gaanactcct aattggctct tccaach 417

<210> 730  
 <211> 276  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-045-Q1-E1-A5

<400> 730

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 ttaacatagt aacatcatcc caacacaang caaaggaaca gacnangnga cgcancacga 120  
 aacnanacta anagatcagg ttttatttag aaaanataat tattcccgat agataanaga 180  
 gatagagaag agttgccaga anccaaagag ctcatcaagc ctccttcncc cctgtgagga 240  
 gatccatnac cagcctttg angtttccac tcgagc 276

<210> 731  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-045-Q1-E1-C8

<400> 731

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 nnatatgcat ccgcgaaagc ggtgtaacca tatccgagtc actgctactc acatagccga 120  
 attcttcatt atcatcatca gtagaatctt caattttcac aactgacttc acatgttttg 180  
 attcggcagc cagtgatcct ttcttcaggg atttatattt ggctttcttc gcctttttct 240  
 tcttcttagg cttcangtac atgagcactt tcgttcctgt gtcaaaacna tttcagccac 300  
 ctctgccgct tccctctctc taagcttcat tttccaaatc ttccattaac tacanacatn 360  
 agtaaatang tgacaagctg aaaatgcagg gacatggtaa gaggcaacaa 410

<210> 732  
 <211> 367

<212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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<400> 732

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nnnnnnnnnn nnnnnnnnnn nnnnaccaca ccacaccaat tattcgcana aatagtatac 120
atanatcaaa cgatccaatt cgggttcagt ttagaaaccg tggatcttga tctgacctt 180
cttagcaatc ccagtttggg ccaagaactg agacactttc ttcttttgat caccttgaag 240
ctggatgatc ttgcctagtt cnttgtcttg cacaagcgtt accgttgcag cagaaatctt 300
tcttcaaate cntganaatc ctctcgtaac tgtaaccgtt tcttaagccc ttgacaagtc 360
gtcnaag                                           367
  
```

<210> 733  
 <211> 375  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-045-Q1-E1-G11

<400> 733

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gagatttcct acagaagaag aaactggaat ttgtctctat ctcacgatca cgtgtcgtca 180
ataggagaaa gacctanacg tgtgagatna gaagcctaaa agtgaaccga cttcttcctt 240
tgtcngtcgg agcaccgatt ccggtgaaga aggaatcaca accgannaca ntcnacatac 300
attcttctga ttttttcngc cgttaciaag taatcngaag actccgantt naagcaagag 360
cttaanggga ctgag                                           375
  
```

<210> 734  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations

<223> Clone ID: ARABL1-045-Q1-E1-H12

<400> 734

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ttacttaaca cggcaacgag gttgctttct ccttctgttc gtctcactgt acagttaaaa 120  
atggctctat ggactgtgca agttcttttag ctgctcaacc acatcaagag tattgcttag 180  
ctgatgataa tcggagcgat gaagagcggt tatttgtccc gaggttttgg ttccatcatt 240  
gaaatgggttc tttgcangtc caccacgagg gcagtgcgc acacggattc tatgctttct 300  
tgtctcagtc gagaaccttc cgtggaccac gaggaccaat atgacttcct tgtcncttgt 360  
gtcctcaaac caagagttct gaagcaacac cgtccaaaaa ac 402

<210> 735

<211> 399

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-046-Q1-E1-A10

<400> 735

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nnnnnnnnnn ncaatacatt attaaggcta catattcggt atttaatat taatcctata 120  
tacaattaaa atcttatgtg atcctcatgg gcttcacaag tcaatgaaga ttgggctggg 180  
ccgaagtaga ctctgactta acaaaacgaa caagagacaa ctttgcgata tcggaaacgg 240  
caagcatttc gaacggcggc ggaatcactg atgagaaact catacgccgc ttcgaaagct 300  
tctcgccaga accgaggaac cttaacgcca ccggagcgtc cgtacacatc cacatctgtc 360  
tcancanttt cctctctctc ctcaaatttt caanaacgt 399

<210> 736

<211> 425

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-046-Q1-E1-B1

<400> 736

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 tgtatattaa catacagtat gtatagatcg aagctaattg gnattattac aagccaatta 120  
 gttgatttta agaaacatat aactcggcgt gtccgtcaat gaaaagactc atgaactctt 180  
 ctccatccac agtttctttc tcaataagga gctgtgcaag cttgtgtang atatcaattt 240  
 gtgttggtan gatctctttc gctctcaent acgccttctc aacgagcnet ctcacttccg 300  
 gcatcaacca natccgnetg ttgccatcga gtaatccgnt ctgcgaagac ataccttngg 360  
 cccagaaaaa ggggggttccn ccctgngtnc aacaangggg agctgggcag acacgttttg 420  
 ncggg 425

<210> 737  
 <211> 400  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-C12  
  
 <400> 737

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 aaaattatag aacataacat aagaatttat atgtaagaga tgcaaaccac gtttatagag 180  
 ccattgtttg gttctaaaaa nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 240  
 nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 300  
 ngtaagcttc tcaccaaggt ttgtcatcac atggcgggagc tcagctgctg agatgaaacc 360  
 gttctgggtcc ttgtcgaaaa cccggaatgc ttccttgagc 400

<210> 738  
 <211> 443  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-C3  
  
 <400> 738

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taaacatgat gctgaaaaca aagattcttc aggtagagta aattttgccg agattcagaa 120  
 cacaataatg acaactcaaa caactagttt ctttttcttc ttcagagttc atcaaaacaa 180  
 aagagcattt cacctttttg attcaatcag attcacaact tgatcattaa aatatcgcaa 240  
 aatgctccca aacaaccatc atatctgata aagatcaacg gttcaggggc aaaagagcat 300  
 gctcctgggc aacgggtaaa gtagggcaca ttagggagac ctaagcaagg tggngagaacg 360  
 caatcccccc tgaaagcttc natccccgaa gccgaatttc ggagcctaac gtncncttgg 420  
 aagcgaactc aaaactcctc caa 443

<210> 739  
 <211> 432  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-C6  
 <400> 739

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 gctgatcaat gctagtcttg ttcgtcggta tatataaatc ttaacattga tttcaacatt 180  
 acatgagaca gctcaattct caaaccgtct aaaccagtca acgatcgtcc tggaaagaac 240  
 tcgagtttcg ctaagaggaa tggcttttag cgcctgagcc acagcgtctg ctggcgtgta 300  
 cacagtccca atttgccact ttggatcctg tatgcaangt gtaagatggg ttccgttcag 360  
 ccgaaacctt tcaaagtgtg ccacaataga atccaanccg aagcctaaag aatttcttcg 420  
 ancaaatcag tc 432

<210> 740  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-C9  
 <400> 740

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gatcacaaat taaactcaact ttccggggac gaagttggta gcgaaggccc atgcattggt 180  
gttgactgga tcagccaagt ggtccgcgag gttctccaac ggtccctttc cggtgacaat 240  
gggcctgaac gaaagaatcc aaacatagaa gaacataacc aaaccttcg ttccttgaac 300  
tccctcacct tcaaactccg gcgaaaagcc tcgggggtcaa gttagcgaag gccaatgggt 360  
cgaaagctcc caactgggta aagcaagtcc tctgcntctc ccaatggaac atctccggg 419

<210> 741  
<211> 184  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-042-Q1-E1-E3

<400> 741  
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caaaacaggc agaaaatgtg aaaacatgtc tgcctcaatt gttttcttct cgagccgant 180  
cggc 184

<210> 742  
<211> 75  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABL1-042-Q1-E1-E4  
<400> 742

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tcttacaaaa cacga 75

<210> 743  
<211> 430  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 743

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caatcagaaa atattcttct tggcaaagtt acggcattag acgaaagcat tgattcttgt 180  
tacttgctac atcagtagaa cttggctcac ttctttccac gaagcttagc tccaagcgct 240  
ctctccagct tagaaaggat ttgctggttg ggtatagctt tgccaagact catactcttg 300  
aatcacttgt ggctcccatt gatgatttga gcaagttggg actgggttag cttcctggcc 360  
gtcctggctt gcaataaagg ccttccttan cccaattagg nacaacgttc aagaantaag 420  
gtcccaatgg 430

<210> 744

<211> 407

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-042-Q1-E1-E6

<400> 744

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acaaaccgga tacacacaac tcgatcacia attaaactca ctttccgggg acgaagttgg 180  
taccgaaggc ccatgcattg ttgttgactg gatcagccaa gtggtccgag aggttcncca 240  
acggtccctt tccggtgaca atggcctgaa cgaagaatcc aaacatagag aacatagcca 300  
acnttccgtn cntgagctcc ttcaccttca acctccgcca angcctcggg gtcagtatcg 360  
aaggcccact gggtnangc tcccaacctg gggtnaggca ggtcccg 407

<210> 745

<211> 436

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-042-Q1-E1-F1

<400> 745

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 ccaataaaac acttacacta gagaggaaat aataaggcca aaacatacac acgcaagcaa 120  
 gaaattaact ttgaaaccat gtattattac ggacttgatt gcctcttcat caagattgaa 180  
 ggcttggttc aaagaggacc tggaaaagtt ccactctccc tctgctcggt ccacttgatc 240  
 acccattctc caggacagag ggcacggtaa tacttggtgaa acctttcaca gtcattagac 300  
 tcctctccct ttgcaagttg tacacctgtg aaactccatg taccgagtga agcagtgcct 360  
 cgtcctccaa ggctgatctg atnaaagaaa tggngaaant nccagaagca agagnaagaa 420  
 atcaacgtcc agtggg 436

<210> 746  
 <211> 445  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-F3  
  
 <400> 746

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 aaattcccag ctgcttagct ttttcttcca aagttgaaaa caaatgaat aaacccatct 180  
 cagagttgaa actaaagagg cagaaagagc ctaaaatata gagaacaaga ctgattctgg 240  
 acagaagtga aacagaggct gacaggtttc aagcttgagg ccttggttaga cttgaagtgg 300  
 cttgancanc tnccaagtga aatnangcaa ncgtncctt caaanttaac nttaggcagc 360  
 aatcctnaag aaacctacca ttaactctc cccttaagat tcaaagttaa tgggaagatt 420  
 aatacctggg cctggaaatc aaaaa 445

<210> 747  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-G1  
  
 <400> 747

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 cttcttaaat atttcacaca catacaaagt aatttacang atatgaaatc tgcatacat 120  
 ttccaagatg caacaaaccg gatacacaca actcgatcac aaattaaact cactttccgg 180  
 ggacgaantt ggtagcgaag gcccatgcat tgttggtgac tggatcagcc aagtgggtccg 240  
 cgagggttctc caacgggtccc tttccggtga caatggcctg aacgaagaat ccaaacatag 300  
 agaaaaatan caaaccttcc gttcttgaag ccccttcanc ttcaactccn gnaaannccc 360  
 cgggggtcagt aaccaaggcc aatgggtcca aacccccaac tgggtaaanc aagtc 415

<210> 748  
 <211> 397  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-G9  
  
 <400> 748

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 actagcaaca acaagttgta acgataanna gctttaggcg ataataggat tattagtcan 120  
 naacaaagtt aaacagattc ctctcatta gagaatgatt gatggatcct tctattccca 180  
 gttggattct tggagatcct tccttgctta gcagatttcc tgccacgaac acctttcaaa 240  
 attgtagaga ttttttgttt ttgggggcta taaccacttc agatgggatg caaccaccaa 300  
 ganaacatat cantattgan cttcaatcct tcggccgcn actttaccat aatatatacc 360  
 cgtggattcn actttgtcca tctgaccaca naacatc 397

<210> 749  
 <211> 439  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-H1  
  
 <400> 749

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agacaacatt tcttttagcct tctcatacaa gaaaatatat ataagcaaga cctttttgcc 180  
 ttatataaaa ccctacacca caaacaccct ttcagtatta ctcatctcat ttcaaaagca 240  
 ttagagatta aagaaaatca tatttntnat aaaaaccaca ctgggcttat acgaagaacc 300  
 ttagaaataa aacaatggcc atcttacggg ttacgaagca ctgaggagct taacatcatc 360  
 gattacgggc ccacacaagt gatgaagaaa tcatcgctcc aaccgaagta aaatgggtgct 420  
 gtaaaacata actcctggt 439

<210> 750  
 <211> 399  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-H11

<400> 750

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 gtcttgccac attaaagaaa gtagacgaaa aagaagatta aaatatctga gatcataaca 120  
 gattctctac gtctcatctc atctcttagg cttcagtgat gggaaactca aagacgacat 180  
 ctttgccagt gagcttcttg taaaccgcag agaaagcctc aaccttgtag tctgtgttgt 240  
 tcctttcctt tgggtccaag aagaccttca tgattttggt accgtcgagt ctgtaccttg 300  
 tgcgcttccc aacaatctct gcaggtaaga ccacatcatc aagaatagct tcatggactg 360  
 aggtcagagt acngttgcgt ggtctctttg ccgctgaac 399

<210> 751  
 <211> 397  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-H12

<400> 751

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 ctgtatatat tataacatga anagtttggt tatacataaa aactcctgtt aattgcatgt 120  
 tttggtactc nagataacac aaggatgtca aaaagaagga agaaaaaaca aacagatcac 180

ggaattgagg gtcttgaaaa acagtaagga aacttgatat gatcggtgaa ctattcgtgg 240  
 tatagatata agccgagacc aaatcgagca catgctctgc agaatgctat ttcctcagct 300  
 gcagtaactg ggatcctcga tgtgatcatc agtcgtccgt tactgtccca gttgattcac 360  
 gatgtgcctc accatcagag ccacgaatag tgagacg 397

<210> 752  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-H2

<400> 752

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 atagggagag agagagggca cagctagatc tcagctttaa tatccacgcc ttggaggacg 180  
 ctcttccgct acattcactc tgattgctct accctccaag ttctgtccat cgagggcaga 240  
 gatggcttcg ttgagttcat ccacgtcaga cattgtgaca aaccggaatc cacgtgaacg 300  
 acctgtctca cggtcgtaaa ccaccctagc ttccacaact ttancatgct cactgaaaag 360  
 ctgtttctaaa cgggcattgt ccacatccca tgggtagatt ccctacatat actccgaatg 420  
 caaggtcata tanc 434

<210> 753  
 <211> 436  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-H3

<400> 753

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 gatttcatgt gaagaatgaa gaaagacata tatacaatac aactgaatta agcaagaaac 120  
 tccacaacat tgtctatcga tttcaatgtc ttctcgtagt aaagatagga ctctgtacacc 180  
 tttggcgtcc gtacatagaa atccaactca ctcatgtttt cgacaagctc gtttgccgcc 240

tgaacgtaat cattccggcg actctccggc aagatgttca tggcgttggt gagattctga 300  
gacagataag cctgtttcaa tcctatgtan aatataacgt acctccacga catgtgggtc 360  
caacatctcc ctccanggtct cttaatcctt cagccgtctg ttttaaacgc gccgccgcaa 420  
tcctcaaggt gaatan 436

<210> 754  
<211> 162  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABL1-041-Q1-E1-G5  
<400> 754

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atatcatgta catgtattaa ttttacctg aataaatcta taaaaaaata tatattgcaa 120  
ccccaataa tatgaaaaaa aaaaaaaagg gcggcctcga gc 162

<210> 755  
<211> 397  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABL1-041-Q1-E1-G7  
<400> 755

tttttttttt ttgacaagac tttatggtca atgtgtaaac tggtatacaa aatcatacaa 60  
cacaggagga gcctgaagat tttctgaagg acaaacaaca aaatggaaat ggaatataga 120  
aacaccaaag aataaatatc aaacctatct caaatcattt tgatgcttat aaaaaataca 180  
gtaatctaac actctcacia acccaattct tcttcagggt catggcccgt accttcctc 240  
gttcacccta ttttaacccat gtttgattc gatttaatac ctcttatag tcttatacta 300  
caccttagaa caciaacgca atctcatgc ataacatagc tctcgtgagc taatattctc 360  
gctctttctt acccaaattg gtttcctcct gattgga 397

<210> 756  
<211> 393  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-041-Q1-E1-G8

<400> 756

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cagtgtagca taagaagtta caaatgaaga acaaacttta tggcgtatatt gatcaagcgg 120  
ccactggagt tttagagggt tgcagtatct tctcgtctaa ctcaaactta atctctttct 180  
tgtctctgcc aatcttcaca tactcttcga atctctcctt gagatcttca ggcagattcg 240  
ttttactctc ccaccctaata aagtccttag cggctcttgg ctctgcgtag aaatgcatgt 300  
ttctgaatag aaaagccttc ttggcgtcaa cccaatggc tttagggtca taatgaacga 360  
tttcaacagt ttgcaacaa cnggaacaaa aaa 393

<210> 757  
<211> 399  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-041-Q1-E1-G9

<400> 757

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tgacaccatt ctgttcttgt agcatttggg acgtgttttag attacaacta actcgttaaga 120  
gtaactttta aatgctattc ttagagagga agttctccac tgtctgcaat tacgactttg 180  
ctcttaggag ttccgctttg ttggccctca gcttcaatct tataaactac atccattcct 240  
tgcaccactt tcccaaacac cacatgcctt ccatctaacc agcttggtgt caccgttgtg 300  
ataaaaaaact gcgaaccatt tgtgtcttct cccgagttcg ccattgaaag tacacctggt 360  
ccagttgtgc ttcagcttga agttctcaat cagcaaact 399

<210> 758  
<211> 66  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-041-Q1-E1-H1

<400> 758

tagaactagc tcgagccgnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnnc 60  
tcgagc 66

<210> 759  
<211> 399  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-041-Q1-E1-H10  
  
<400> 759

tttttttttt tttttttttt tgcaaaaact tgtaactgtg tgtttatatg aaaattgttc 60  
caaaaatctc aacaaaaaca aaaaaannaa acctcaaagg agtgatcagt tggctcttagg 120  
atcaggcatg gggaacaaac caccagcacc ancagctcct cncggcggag aaaaccctag 180  
aaatttctgt anattgggtc tgatactaata tgaacacagc agatagagaa aagccatgga 240  
acaatccgtc ggatcatcac ctttcagtc cctgtgactc atcttcttca ctatcgtgat 300  
cggatggaaa ggaagcttcg cgacgacttt accttcgaat agtgaattga gcaatccgaa 360  
gacgacgaag agaaccagtg ccacaacggg gccggattt 399

<210> 760  
<211> 387  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-041-Q1-E1-F9  
  
<400> 760

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attttggata ttatttaaga aactagnnga tactggacca acacacatat tatacattan 120  
atattcgaga aatgaaaaac ttggcttgtg aaaacagaaa ttaaacatat actacaccaa 180  
cgcatacgtt atacgtgacg gagaattaaa agcttcgctt gtgagtcctt gattacncat 240  
taatataat atacnagggg gctggagtgc gacccccacc atgcccactg cctgatggtc 300  
ctgtaaatat gtctccattg ggtctanac tacgcatcaa ntctctccca ttacngcctg 360  
gancgtggtc actcgttgat gatggng 387



<210> 761  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-041-Q1-E1-H11  
  
 <400> 761

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cgactgtggtt aagtatataa atacatagag cgcagaaaga ttcttatgac aaaaccacaca  120
ccaatccaac tcccatagct caaagtaaata acaaaatcca aagaatcacg cagctctcaa  180
gaatatatca gacacggagc aaaaaggaaa gagagggaga gagattcagg ggcctcgagg  240
tttgaagaaa cagaggcacc cctgaaactg gtccggagct atcattccac cacctttgct  300
tgtgtctatg gtttcaagca gtttaccac ctcctccatc tccggacgcc tgtctggatt  360
cggggtcccag catctcttca tgaagtttgc caccg                               395
  
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<210> 762  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-041-Q1-E1-H12  
  
 <400> 762

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aagagcttan acanaagctc caactttggn attacataaa gcccaaaaaa aggccatta  120
gataaccttc tgcagaagaa attctatcgg aactccatcc atgaacacat gtcgacaacc  180
gggatatacc acgtcacacg ctggatgaat aatcaagagt tttccggcaa caaccttcgg  240
cgttgagctg attccggtga natgattcgt gtgttttgca ccaagaatga aaacatcaaa  300
gctccaaatt aaagataacg gcttaaggaa tcntgataaa cgacgggaag aatcctcaat  360
ccttcaacaa aagagaaaaa ttctttgaaa ccaataagtt a                               401
  
```

<210> 763  
 <211> 402  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-041-Q1-E1-H2

<400> 763

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catgatacat cgcaaatatg acaattgaca aacacatgca tataatagat aaagagccac 120
atacatgata cattgcaa atgacaaaaca cgtgacatgc atataataga taaagagccc 180
cacacatcac aaatgaaaca aattaacgtg catacattta ttgacgcaat ttcgtagcta 240
tagtgacatc agtgacttgg tgagtttttt gggaaacctt tgggggaagn agnaggntac 300
nnaaanggna ncttcnggga acaaaagggg ggaaatggcg gaaaatttgg cccccaaggn 360
ggaaaccgga gacaatgaat gggganaatg ggcccagtta aa 402
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<210> 764

<211> 449

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-041-Q1-E1-H4

<400> 764

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ccnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnngag cggattaaac 120
ttaatttccc cttaattttc caaagatatg acaaggaaaa aaaaaaacgt aatcaaaggg 180
gaaagtaagt caaaaagtgc cttttcgctg ctgcaaaatc ataggaagcc taaaatcacc 240
aacactgata cgtctcccat ctccgggtcg tagcgtaa ac cgccccgac cgacccatcg 300
ctccggcgtg taccctctc cgtggtactc taagcgtcga agtcgtaa at cgctcttgta 360
gtcggattcg caagtgtcnc gtaagctttg tgaatcccca aaaaatctcg aacgtccgan 420
tccgaancat ccggatgaaa atactttan 449
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<210> 765

<211> 399

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-A12

<400> 765

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tttattgata aactcacact acaagtacaa atgcatacca aaagttgata catttatata 120
tacgctcata agcaaactat tagattatTT ttttgacaca atacataata aaagcattaa 180
tacatttaag taanggttta taaattcctt ttgggactgg ctgatcccggt aaatacaagc 240
tgaacaagga gtatctctan aattgctcaa aaaccatgga tttttangtt anccttcttc 300
acaagcccag cctgaacaag gaacgtagat acgttcttcc tctgatcacc ttgaagctga 360
ataacctgtc cnaattcaga gtcttgagcg acggtggcc 399
  
```

<210> 766  
 <211> 489  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-A2

<400> 766

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gccgcgggtc cggaataaaa ttcccggggt cgnccaagct cactantcng cgcccgcat 60
tgggacgcaa gcgagaagtt tcaatacgat cctttgagtt actctttgaa cttcgatgac 120
gacgacgagg aggatgaata cgtcggacta ggtggattac gaagcttctc gacccgattc 180
gcttctgtcc cggtttactc aggtaaaagct cgggcgattt cgccgacgtc gttgtctgcg 240
ttgacgcgcg gtaatgagat cattgaaagt tagtgggcgc gtgtgagaaa cgcgtttgcg 300
tttctggcgg cggggaaaag gctgtcaaaa tgggtgactg gtttggttta catcgTTTT 360
gggagtctgt cgcgttttct tatttaataca ttctgtttat ataataact ttgaattaan 420
tttaataatt tccaatttta attaanTTaa ttaanaacca aattttaagt tcccccaag 480
cnaaatccc 489
  
```

<210> 767  
 <211> 445  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-042-Q1-E1-A3

<400> 767

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aatagatttt tgggtctgtta catttgtaag aacagaacat aagagaagtg aataaattgt 120  
tcacaatcag acgagcgagt gtttgtgtgt ggtatcagag tcattcttca tcccttttat 180  
tggtcttgta tgaaatgagt gtgttcgacc ttgtcaatca ctctcttgat ccaggtgaac 240  
ggtacagcca catcggtatc agtaaagtct cccaacacaa cagacacacc ttatccaacc 300  
gccaaagccc gattaatgtc tctctctctc cttacatgtt tcaatggaga caaaggcaag 360  
ccaagttatg cnnggaagca acnttgnecc aattaananc ctggaaaccn cccccgtgga 420  
ttcccctaan aactttcccc ctttg 445

<210> 768  
<211> 101  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-042-Q1-E1-A5

<400> 768

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ggttcttatt aaaaaagcaa taataagtgt tttggatttt t 101

<210> 769  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-042-Q1-E1-A7

<400> 769

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gaatgaatat agtaaaacat ttttttacia tcagctaata tagaagcttt gaaaacaatc 120  
caatgttgat tttttccagt ttgacctct gaagcttaag taactacgag ttgagagtgt 180  
ccaagagatg gacaaggaga taacagaggc acggaaaata ttcccatgtc ttactgtct 240

gctccgcccc aaaacccctt ccaacttgat ggcgttaatg gacaagcatc agcctgaacc 300  
 tgagctttctt ccctcttaac aagctttacg gctgatcagc tggctttcat cctccgtcac 360  
 ctgtctcttc ccccttggct ttaaagaaat aagcctcctg gtgtcccca agtcctcaag 420  
 gcttcc 426

<210> 770  
 <211> 454  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-042-Q1-E1-B4  
 <400> 770

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 ctcaagacta tcnagttgct gcttctctta gtggacgcaa atcgatcaac tcttcattctt 180  
 cgtccatttt cgtacctatc tcattatcta cttcctacgg tcgaagcana tgcagccttc 240  
 tcaatctcgc ggaagaatcc aaagtcgacg attcgttgcg aatattgcng tgaaaatcgg 300  
 cgggnttntg taaacncnng acgctgatct aaccgtcaat ctacgtcngt tgggatnact 360  
 ggangannac gataaaagcc gaaaggagaa agaatgggaa gctanggggt aatggttaac 420  
 aggttcccggt ttgaaaaagt tnaacaaagg tggg 454

<210> 771  
 <211> 439  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-042-Q1-E1-B8  
 <400> 771

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 ggtttgaggt cctcaagat cttttgccat acattcattc gggtaaaatc ttgtgaaaca 180  
 cacacccatg agagcccatc aaactgatgt ttaacatcct catgggttaa aacctgttta 240  
 gcaagtgtgg ttttacctag accaccata ccggttatgg aaaccacttg aacgtttgct 300

tcgtccacca aaatatccaa ccaattttct taacaatttt gcttccaaac cccacaaaat 360  
 ccgctggctg tccgtcotta gaaaaatttt tgtcgcaacc tccctttggt aatcaccttg 420  
 aaggttgctt ataccacc 439

<210> 772  
 <211> 379  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-041-Q1-E1-B11  
 <400> 772

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 aagattttcg gaatataacg ataaatggag ggcatttcta gaaatattac atgctctctc 180  
 tcttctctga cagttacttg agaaaatgat tgaagtaagc caaaaattaa aggaaaactc 240  
 caaaagtttc caaatattta atcttggaac ccaaattttt caaaaattgc atttgaacc 300  
 ctactcagat ctcttccttt caatgtcntc ncnanncctt catgaancga gaacgaagcc 360  
 attctcgtct tcgccanaa 379

<210> 773  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-041-Q1-E1-B2  
 <400> 773

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 tcctccactt gaaaatatag gtattgcgag catttagtgc tcagaaacga agataccggc 120  
 catacccatg ccagttccaa cacacataga ggtcacggcg acccgcttgt cctggcggcg 180  
 cagctcagag agagcagtga cgacctggcg cgcaccggtg gcaccagag ggtgaccgaa 240  
 ggcaatggca ccaccacggg ggttgacctt ggactcatcc agagcaagct tgttgacaca 300  
 gtagacaccc attgaggaga aggcctcgtt aatctcgaaa atatcaatgt catccttgct 360

caagttgaac ttgccaangg tcttanggat agccaagaga t

401

<210> 774  
<211> 402  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-041-Q1-E1-B3

<400> 774

nnnnnnnnnn nnnnnnnnnn nnnggacaat tcataatttt aattaatcat aacagaacgt 60  
taatctctct acattagcct gcctgcgacg gcncatctcc cttactttta cgtttacact 120  
ttaatatgtg tcaacttaat caagattaga gctcaciaat cacagttttc aaatattaaa 180  
tcctataggt aaaatcatag ccattattac tatttaatca aagtgagaga aaacgcttat 240  
ttaaccaaac attaatatat ggggttaaaaa gaactaatcc tttcctttcc ttttgaacag 300  
cgggttaaaaa gactattcaa gaagactaac attacgtata aaccatactt aagattttac 360  
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<210> 775  
<211> 397  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-041-Q1-E1-B9

<400> 775

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tgcaagtaga aaacaaaccc agtagaagaa agccaagacc agtttttagtt tcgtttgctt 180  
cgaaggacac cettactacg acgattcttc atccccagct taaacttctt cttcaacttc 240  
ttccaatag gtttttagcga cttgtttttc ttctcatcat ccatttcctc atcactatcg 300  
ttggcgattg tagtggaggg aagatgcaga ctgagaggaa ggcgtcgcaa cttccataaa 360  
cggagaaaact ggggcttgac gaactggtaa cttcgga 397

<210> 776  
 <211> 398  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-041-Q1-E1-B1

<400> 776

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tcgcgtctcg aacgcgcctt aattctcgtc ctttaagagt tcttccaact ccttcaaaca  120
ccgagccacc gccgccagat tttctgctcc gtcgctgttg gctcttcgcc aagtactcat  180
gcggcggcat catcatcccc gaatcttctt cctcctcttc atcagactcg tgtatcgact  240
caaccgagtt gactcgggat atcttactcc aatccggcac gttcaccggg agcccgaaga  300
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn  360
nnnnnnnnnn nnnnnnnnnn nnggggaaga tgacgcgt                               398
  
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<210> 777  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-041-Q1-E1-C10

<400> 777

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acgttgatac atgatactct gttggcggtt tacaaatcct agagagtcaa aaccattatc  120
caatcgctgg cttgtttctt actttgcata tctcttctca tcatcatcaa tatcctttat  180
agcatccttt gcaaggcttg tcacatatgt tccagccaat gcagtaacca acagaccac   240
cccgagagtt aaaagctggc cgtttctctc aggcaagcca acattagatt cttcttgaat  300
gattgctcgt ccaaaanccc cggcgctgac ataagccan gnagcctgga agcataccca  360
ancagcttcc taatacctaa ggcataaact tcaca                               395
  
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<210> 778  
 <211> 382  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
<223> Clone ID: ARABL1-041-Q1-E1-C11

<400> 778

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gaaatggata cgacaaaagg catcaanntt cgcgcaaaat taacaaattt atttgaagtt 120  
gaaaatcgac attgcttgat tttgtttata tcaatcgttt aaccacatag catcatanac 180  
ttaattctcc aaacagaaat canatataca cacataaagg cttttggatt ctcttatagt 240  
tataaactgg atcacatcac tgaagcatcg ttttatgcct ttcagttgtc gccttgccctc 300  
agtanacgca atatgggtca agannanatt gaggatgtcc aagttagaag aagctactga 360  
nngctaggga tgtatccgtc nt 382

<210> 779  
<211> 399  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-041-Q1-E1-C8

<400> 779

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attctagtaa aaataattaa acgttacata aaattacact cgtagatttc acaccaacac 120  
atcttctatt gagaagattc tttttcaatg tctggtatag ggaagtttta ctagcttggt 180  
ccataactcaa gtaattccca cctgaatggc tgaaagacat atagcacttc cgggcaactc 240  
ttgaacaaaa gagcgacaca aacgcaaacc gctgctatcg ctaccatcga aagcattgct 300  
ggcctgtagg caacaagact tgtggtgcgt tgtgacaaac acacgtttgt gatcacagag 360  
cttacattgg gtttatctgt gttatctcca agcttgaag 399

<210> 780  
<211> 400  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-041-Q1-E1-D11

<400> 780

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aagttccaaa agacacattc gttctcaa atcaaggtact atgtaacctt aaataagacc 180
aaaaagaaac aagaaagtcc ttttcaagga agatnagatn cagcagcacc accaccgaaa 240
ccaccaagct ccacgaccaa acccttgctt agctccacca agctccaccc ctgaagccag 300
gctggtaatc agcangtgct ccagccttgt caccatactc tccacctgat ttaggacctc 360
cacggtatcc atctctgtca ccaaaacctc ctctctccat 400

```

```

<210>      781
<211>      400
<212>      DNA
<213>      Arabidopsis thaliana

<223>      unsure at all n locations
<223>      Clone ID: ARABL1-041-Q1-E1-D2

<400>      781

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acaatgaatc caaaccaaac tacataagta gcaaataatgt tcaccctacc ctgaaacaa 120
cactattctg caggtcataa atcagttggg gaatcttgta gctcttctca cccacgggac 180
catcgaacgc tgctgctgat gagatccagc tccattgttg cctacattgc ttctattgtc 240
tgcaaacctt ctcttctca ttctctcttc cttcatgttt gcaaaccgag aatccagtgt 300
ctgaggccat nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360
nnnnnnnnnn nnnnnnnnnn ttccgacaaa cctcttttgt 400

```

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<210>      782
<211>      391
<212>      DNA
<213>      Arabidopsis thaliana

<223>      unsure at all n locations
<223>      Clone ID: ARABL1-041-Q1-E1-D5

<400>      782

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cttacaatgc ttttctgatc tatgcatcna agataaaata gtgttttaca gtagcatcgt 120

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attgaaccaa ttgatccagc catgtggtgt atgtcagcca ttacttgttt gcgttcccta 180  
 ttatcgggta gtgtccctct ttaggctcgg tttgcctccc ctagtatctg attgggtccat 240  
 cgaggetgcc tgtagcaaac tgttgaacta ttggattagt tgaggttgtg aattcatgtg 300  
 tcattccttg ccaaacgatc tttccttcat acagaaacaa taacctgtct acagctcttt 360  
 gaatggtgct atgttgatgg gtaacaacaa g 391

<210> 783  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-041-Q1-E1-E4  
 <400> 783

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 agcagccagc ttgaacatga ccaccgtgtg tttccaattt taccatcgt gagctactta 180  
 aatcacatat ataccctacg gtggcttcac cgtatccagc caacgccttc ccgttgccga 240  
 tcacaatcag catccccggc ctcaccgcta cgtaagtaac attgtacaca tcagcaggga 300  
 tctggcccac cttttgccac ttgtcattta gaaacatcat cacatcgcca cccagcacg 360  
 cgtacaaatc cccaacggcg accaagtcgg aagggttaac g 401

<210> 784  
 <211> 244  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-041-Q1-E1-E9  
 <400> 784

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 caacacgagg taagcccang gntcacatnc attanctgac caaacaaaat tcgttttanc 120  
 nataacttac agacataaaa atcaactcgt ttttaaacct gaatctgaca acaaccctcc 180  
 atatcaacag ttttgagttt cnttttgaaa ctctctcaaa gtgcgtcaca acttcanacc 240

ctac

244

<210> 785  
<211> 400  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-041-Q1-E1-F1  
  
<400> 785

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tctcttgacc aaagttaaaa acacacaaca ttgaaacat gacaaactag atgtacttga 120  
agagcaaattg gaggatctaa cttccgaaga cagcgacttc gagattcttg gcggagtcaa 180  
caatggaagg aggatcaaag cgagtaaaga gcttataaga ggagattaga gagagaacga 240  
tgtagaaaca aaccacaaag aatgtgatta taacagaagc agtggctcta tgacagaaac 300  
cgccatagga gctacatgca tcgctccaag taatggctga gtctccattg taagccaagt 360  
atagaacctc agctgataca gctccagcag caagaaccan 400

<210> 786  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-041-Q1-E1-F3  
  
<400> 786

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aatcgttac aacatcacga atctgtaata ttgctattc gtataagcaa aatgtacaat 120  
tcacatcact aagacagatt acttaacgaa gacgtttagt taccttattt ttcttcgctg 180  
ccgtttcaca cactaacact acaactagtg gtaaactgat acttaacggc gttgtctccg 240  
acgataactc cgttagcttt gttacccgaa gtttatatat gctggacact tcacatgaag 300  
atgatacttc ccggtgataa aagtcccaac cttccaactc aactcctaac atcaagcacg 360  
aaatggattc aacaaaaacg aacaccgttt atcctttatc ggtgtcaaag 410

<210> 787

<211> 398  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-041-Q1-E1-F6

<400> 787

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tttttttttt ttttagaaca acaatccagt ccatgtaata tttaacagtt tcggacttaa   60
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aagacaagtt tttacttatt catacaatat ggttcacaga catttgga   ccataccaaa  180
cagactgata aaatctcttt taagcaaaaa gaatctgaga attcgatgga gttatatctg  240
cataacgctc cggcgactca acaacctccc acctcacagc aaacttattc tccgactgcc  300
aaatattccc aaccgcgaga tgaagattcc taccaaccac atatactctg ttcccataac  360
agttaaccgc aaacggtcta caaaatctgc tcangcaa                               398
  
```

<210> 788  
 <211> 396  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-041-Q1-E1-F8

<400> 788

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn  120
nnnnnnnnnn ncaccacacc aattattcgc ataaatagta tagatatatc aaacgatcca  180
attcgggttc agtttagaaa ccgtggatct tgatctgata cttcttagca atcccagttt  240
ggaccaagaa ctgagacact ttcttccttt gatcaccttg aagctggatg atcttgccta  300
gttctttgtc ctgcacaacg ttaccgttgc agcagaaatc tttcttcaaa tccttgagaa  360
tcctctcgta nctgtactcn ttccctaagcc cttgga                               396
  
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<210> 789  
 <211> 360  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-039-Q1-E1-H3

<400> 789

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cttcaagctt tanaattcca ttttcaaatt tcagataaag atgatgataa taaaacccat 120  
aaacatatan agtacagacg aaaaagttga tattttanac atttttanta aagttaaaac 180  
aagaagaaga aagaaacaga catgaaaaca taaacaggtg ctgaagcata cgaatctttg 240  
tttagcccat ggcatacttc tgagtccagt ttcntgcagt agcctcgtn ttggcnctgt 300  
cggttttgna cagngtgtgc aatctctggg ancaaagggg tcatccggga tttggatctg 360

<210> 790  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-04-Q1-B1-A1

<400> 790

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caaaatcctg agggggcaaa agatgagttt actcttgatc ttgtcgagca atgttcgttt 180  
cagaaagagc gcgtaatgca cctcgatcatg acatcgaggg atgaaaaagc agtttctaaa 240  
gcaatcgaat tgaatgagca acttcagaga attctcaata gacacgaaga tttgctgtct 300  
gggtaaaatc actgttccta acangtctaa cacatcaa atggatattcatt ccaatctcga 360  
acctgtccgt cctatctcaa atggtganca aaaacgcgag ctaaanggtt ctaatgcaa 419

<210> 791  
<211> 445  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-04-Q1-B1-A3

<400> 791

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tccaagacag gcgaacggta gaagcattgc cgtgagtga ggcggcggag ggaagacgat 120  
gacgatgacg acgatgcgga aggaagtgca ctttagaggt gtgaggaagc gtccatgggg 180  
tagatacgcg gcggagatcc gtgacccggg aaagaaaacc cgggtttggc tcgggacatt 240  
cgacacggcg gaggaagctg caagagctta cgacaccgcc gctagagagt ttcgtggctc 300  
caaagcaaag actaatttcc ctcttcccg agagtctact acggttaacg acggtggcga 360  
gaacgattcc tacgtcaacc gtacgaacgt gacgacggcg cntgagatga cgcctcagan 420  
atttccgttt gcatgtcacc gggga 445

<210> 792  
<211> 465  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-04-Q1-B1-B4

<400> 792

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cagaatcaac tagttttgtt tttcctcttt caaaaatgca tttctcttcg tcttcaacat 120  
cgtccacttg gacaatctta atcacattgg gatgtcttat gttcatgca tctttgtccg 180  
ctgctcaact caccctacc ttctacgata ggtcatgtcc taatgtcact aacatcgta 240  
gagaaaccat tgtaaagag ttaaggctcg accctcgat cgctgcgagc atccttcgtc 300  
ttcacttcca cgactgcttt gttaatgggt gtgacgcac catcttgta gacaacacga 360  
catcatttcg aacaagagaa agatgcgttt ggnaacgcaa attcggctcg gggatttcca 420  
gtgattgata gaatgaaagc tgcggtggan aaggcatgcc caaga 465

<210> 793  
<211> 409  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-04-Q1-B1-B6

<400> 793

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ttaaaatctc gacgaaacct ggttggtgga cagattttcc attgtcactc gataactgaat 120  
 ttgaactgtc tgaggctcaa agggcacatg catcagccat tgaagatttg gttcctggcc 180  
 ttgtagctgt gaagaatcaa gttagtagtt acatggatga tgaacacttc tggctgattt 240  
 attttatttt gctgatgccg agactgaatg ggcatgattt tgaactctta gcaacatgca 300  
 aggtatttga aacaagggat caacttttac taaagctgca aaagaaagag acaggggtcaa 360  
 gcaagagcac tactggtcac gaaactcctg aagaaggtag cagtaggga 409

<210> 794  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-04-Q1-B1-C1  
 <400> 794

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 gtcttgtgtc tttagaaact tcgatttgca gaaatctatc aagcgattat gtcttcgggt 120  
 tgaaagattg aagaatattc cgatgcttat tatgattcct ttttgctgtg tcttttaaatt 180  
 ggagcaccgt tcagttttat ttcggtgggt acaaggattc attgtgcat gtttcggcga 240  
 tgcattcctc accggattcg gtgttcatcg gggcggaagg ttgatgtcgg tacacttccg 300  
 atgactcttc atcttgtgtt gcagttgtaa tatcacgtgg acacgtgtat tggataaagt 360  
 ccaaagtgtc aaacatcttt atgccgtaaa tgttaatcct aagggctaag tt 412

<210> 795  
 <211> 394  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-039-Q1-E1-G4  
 <400> 795

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 gcttggttaac tctaaatgac caaatggatg aaagagcaac aacatggtga tatgatatac 180  
 acatgtatta tgaaacttgg tctcaacaag gtaacttgaa acccatgtaa cgaccagaga 240



cataatcatt ccaaacatca agagctccat agcttgatcat caacacaata ctcaatgcc 300  
 tgacgatacc aaccgagaac acaatgatcg aagcccttcc atactcgggt tattaccttt 360  
 tgaancacct ttantcccac gaatggtgcc ncaa 394

<210> 796  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-04-Q1-B1-C3  
 <400> 796

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 gatcacgaga ctttggactt caagtttttg ttgaagccaa agaacagaaa tacgccctgc 120  
 atagtggagg aggggtgaaaa taggcttctt actggtgggtt cgttgcaagg agatgctaga 180  
 ttagctctgt ttaggctgga aggtgatgtg attgttgaat tccgagtctt catcaacgct 240  
 gacagagttt ctccaattga tcttgctact agttggagag cttataggga gaacctccag 300  
 ccttctactg tacgtggaat tcctgatgtc agcattaatc ctgattcaaa atctgctgag 360  
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 tc 422

<210> 797  
 <211> 465  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-04-Q1-B1-C4  
 <400> 797

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 ggggccaaat ggagatttct gaggccatgg acatcagaac aagacaaggg ttgcttaatg 120  
 ccctagcggg aaaagttggc aaaagaatgg acagcctcct ggtgccttta gaattgctat 180  
 gttgcgtgtc tcgtaccgag ttctctgaca agaaagcata cttacgctgg cagaaaaggc 240  
 agttaaacat gttagcagag gggctcatta acaatccagt tggttgattt ggagaatcag 300

gtccgtaagg caactgacct gaagagtcct ctgctaagga ttgaagaatc agagtctctt 360  
ccatcctcaa ctggagaagt gcaaagagca gaatgtttta aatctcttag agaagttgct 420  
atctcacttg ctgagagacc ggctcgtggg gatttgacgg gtgaa 465

<210> 798  
<211> 461  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-04-Q1-B1-C5  
  
<400> 798

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ccgattcggc tcgagcggct cgagcccaat tgcacagca gtctctgatt cgacccccctc 120  
atgggctgcc aatgcccaac tctcttcagc aacccttgca atatcctaac ttttaataccc 180  
ctcctccacc tactgggtca tcatctttgc aggggtcaag cttgccagaa gcacnctctt 240  
cattgtttcc ttttantacc agttcncaaa tgtagctcc tagttcattg cttttccctg 300  
ntctaccacc tgtgacgctc tcgtctagcc tgcaagtcta cantggcaat caagcancat 360  
ctccttcaag nagnnttcag anatgggaac tccgttgctg tnaaacaaaa gccctatta 420  
ctgntectcc taacctaaact caaggtaata atttgcnttt c 461

<210> 799  
<211> 87  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-04-Q1-B1-C7  
  
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nnnnnnnnnn nnnnnnnnnn nnnnnnn 87

<210> 800  
<211> 465  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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 aatccaccaa atttctcaag atcgaaacat ataattgaag atgagcgacg tatttgaagg 180  
 gtacgagcgt caatactgcg agctctcaac caatctctct agaaaatgtc actctgcac 240  
 ggttctctcc aacggagagg agaagaaggg gaagattgct gagatcaagt ctggaatana 300  
 cgaagctgat gtcttgatcc ggaaaatggg cttgaggnaa agaaagtttg canccccgagt 360  
 gctaanaccg tgtgtccttc taaactaaga gagtataaat ctgatctgaa ccaattgaag 420  
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<210> 801  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 801

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 atggaaagct tggttgatcc tcttttgcg tccattgatg ctatcaaaaa gattcaagaa 180  
 acaaggaatc tcaggaccaa agtacaaaat cttgtacgga aacctcagcg agataaagaa 240  
 gatgaagaaa gaagctgacc tttgtgttct gggatccaat tcnatgata tnttcctcc 300  
 gtgtgtttcc ccaagtatca acaatgggat gtctcaataa gggaacgttt tccaaccaac 360  
 cntgnttttt ttttcctcct ttcananatg aaggttactt aacacacaca taagt 415

<210> 802  
 <211> 455  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-04-Q1-B1-E3

<400> 802

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gctactactc agcagcgaga atctcaatct gtctctcctt cgagtatttt acaaaaggct 120  
agtactgcat tagaaaatfff gaaggaagtg cttgacgcag tcgattctca aaatcctgag 180  
ggggcaaaag atgagttttac tcttgatctt gtcgagcaat gttcgtttca gaaagagcgc 240  
gtaatgcacc tcgtcatgac atcgagggat gaaaaagcag tttctaaagc aatcgaattg 300  
aatgagcaac ttcagagaat tctcaataga cacgaagatt tgctgtctgg tanaatcact 360  
gttcttaaca ggtctaacac atcaaattga tatcattcca atctcgaacc tgtccgtcct 420  
atctcaaattg gggaccaaga aacgcgaagc taaan 455

<210> 803

<211> 417

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-04-Q1-B1-E5

<400> 803

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ggatattcat cccagagttc ctaacgaaga tcggaatcct caacactccg tcatggtaca 120  
cggcggggaga gcaagagtat ttcacggaca aaaccacact ctttgtcggt gagctcattt 180  
tgatcggatg ggcagaagga cgtagatggg ccgatatcat caagcccggg agcgtcaaca 240  
ctgacccagt cttcccaaac aacaaactga cgggcacaag acgttggtta accaaggtgg 300  
gttatggttc gaccgttggg gttggggatt cgggagnccg gcgaagctga angatttgng 360  
gaacnagggn gatnaaagaa cgggaaggnt ggctaagttg gcaattgatg ggtgctt 417

<210> 804

<211> 402

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-04-Q1-B1-E6

<400> 804

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ctggtttaag actgggtgctt tgcttcttga tggaacaca ttgaactact ttggcaagaa 120

catccctatc aaccttgctt tcgccgtagt tgctgagggtt gttctcctcg gtggagccga 180

gtactacaga atcaccaacg gattggattt cgaggacaag ctacacccan gaggtccatt 240

tgatcctcta ggccttgcta aggaccctga gcaaggagct cttcncaaag tcaaangaga 300

tnaaagaacg gggagaatan ccaagtttgc caantcgggt ttccttaacc aaagcgtntg 360

ttaccgggag aangtcctgt tgaaaacctt gcaaancatc tc 402

<210> 805

<211> 388

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-039-Q1-E1-B11

<400> 805

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atatcttggtg tttgagtttg agtttgatgt atcacacaag attagcataa attatgtgtc 120

tccttctctg gctctctgca cccattgtct cgtcgggtttt cttggatctt gcgaattcgg 180

cttcctttca ttgacagtag gtccccggcc tetgcttctg cctctgctc tccatctccc 240

tcgacctctc ctggttggtg agctgctaga gtttgtctct gattcagctt ctttgggttc 300

ctctctcct tgntctggc tttcaccagc ttctcttcc ntcgtttcgt gacgttgatg 360

catgagctgg ggggaggaag atacattc 388

<210> 806

<211> 377

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-039-Q1-E1-B5

<400> 806

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tataatcttct attaccttca ctccatcaga aacttagaca agaaaagacg gagatgttca 120  
 ttagcacagc gcggtggaac tatctttccg cgctctcaga aattcaacac tgaaagaata 180  
 actctcgctt cnttttctct ttgctattac atgattgata catccagcan gacaatgact 240  
 aaagagatag tcntttcacc tctctcattc cctcatcgt tctctgtcta agttacangt 300  
 anactctctc ctngaattct tnttctcant cttgcanatc ttctggctan tccggaatat 360  
 caccgccttt tgtcaan 377

<210> 807  
 <211> 389  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-039-Q1-E1-B10

<400> 807

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 canatcttat ttcagttgtg atgtgaaatt aatagaaatt acaacagact catcttattg 120  
 taagtactat taaacatgaa gagagaggat atggatcaat atatctacga gtttaagtgc 180  
 ttgaaattaa ctgattaggt aagaccctac tttgtggcat ccttagcctc tccngcttta 240  
 ccctccgga actctgccgc cttgtttgcg gcttcttttc ctttctctc cacatacgcc 300  
 gcagctttct caagcttctt tacccaatgt anctgcggtt tcaactgtttt tttcaacaac 360  
 gtagtcnttc gctttcgcac caaccggct 389

<210> 808  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-039-Q1-E1-C11

<400> 808

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 cgggtcttga accggcgctt gaaccggatc cgagatccca gcttccttga ggactcgttg 120  
 tcggcgtaga cgccgttgtg cttgtaccgc cggtaacatc aataacaaaa ctcccgccat 180

ttttcaaact gatcgacgac gatgcagaaa ctgcggtggc tataccgtct tggaaaagct 240  
cgaaacgata acctagagtg tcagaggtaa ccagcctcac gccatgcttc tagtcttccc 300  
catggcttcc atgtgcaacc gtcaggctga ngaataagcc acgctccggg gacttgaccg 360  
agtcacccgg gttcgaacca aggagatggg acgaa 395

<210> 809  
<211> 137  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABL1-039-Q1-E1-C4  
<400> 809

tttttttttt ttgcttttaa ctcaaataca ctaaaaatga tgaaacaaca ttcacataca 60  
ccacaatgct cacaaacaat atagatacaa taagaggctt tgtgagttgg ggaacataaa 120  
gatgttggtg ctcgagc 137

<210> 810  
<211> 406  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-039-Q1-E1-C7  
<400> 810

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taagaatata ctttcctgag aaacgtatag agagaaacag gtccctagaa attgtataca 120  
ngaacacacc acattttgat attnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nncctgttcc cactctccat caacagactc tttccacact 240  
gtaacgttat tgttcccatc ggaaacagcc aacaaattac cgggtcaacga ccacgangac 300  
ccgccacact ggggtgttttg aaatcnttca aaacagtacc ttcccattgc tcaacttctt 360  
tcccctaagg tccaataatg atnactttcc atccttctga anccaa 406

<210> 811  
<211> 396  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-039-Q1-E1-D11

<400> 811

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnaca aatataaaaa caaatccaat   60
gcataacaat aaaacaacgc aaaagaagat tctgcttgat cttctttcct gtcctataaa  120
gagttgttgc tagatgaaga actagagaga aaaagattca gttttaattt tccacctata  180
aattgttcaa aacataaaca acaataaacc caaatgacaa cgcagatcca gaagaccccc  240
atgtagaaaag cangtgagtt ccaagaatat ggcgaggaaa gaaacttaca attaangggg  300
aagaacagag nccttanctt tagccacnct tngaccggtt ccgagttcnt cttcagctgg  360
tttttaacng naaagcgcaa tggggtggtgta ctttcc                               396

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<210> 812  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-039-Q1-E1-D3

<400> 812

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agactgaata caaatatggc aatccggagt aatgaaacca cgcacttggc ttgttttatt  120
caaaccataa ttattcactc taagttacca ctgagtanta tgcagcaatt actanaaaag  180
taaaaacana acaaacgata cttagcctat aaacagaacc aaaccggttt agttgttttt  240
ggcggcggtt tcaaacgacc aagctccaaa tatcgtgacg ctcaacggca cgtcccatgg  300
aaccagcaaa accgnggtac atgttttgaa gaagaacttc attgagcact cngggagctt  360
cgatnaaang cccgcttaag gttccttaac ggttttcaag gccgaagtgg aa           412

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<210> 813  
 <211> 377  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-039-Q1-E1-D4



<400> 813

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gaaaatcccc acaaataaca ctaaacaaat ctcttttttt tttagggttc cttctttttt 120  
tgttctcatc ctttttccac acaaaagaaa aaatttacia catagtaata atgtagacat 180  
aacttgcgaa aagagataat gggaggagag gcctcgtttc cttctggtga tactccttag 240  
cattcacacc ctgtagacct ctgttgantg ctcgtcccta catcgattgt gtctggcaag 300  
tatagttctt cttcttctcc gctcttcaat gngtccttgg naatgcattg gaaagcntcc 360  
tccacattag gtaccgn 377

<210> 814

<211> 211

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-039-Q1-E1-D8

<400> 814

gacagggagt aaaggactcc tgaccacacc cagtaatgat tatgtatcca aaataataaa 60  
tgtatacgat gtatgtataa gatggacatg tttcagtatc ttaccaaaaa tataggagac 120  
ttttaatgaa aagtcttctt gtttaatttt atgaacttta tgattaataa aaggagtgtg 180  
tttaataaaa aaaaaaaaaa aaaactcgag c 211

<210> 815

<211> 368

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-039-Q1-E1-D9

<400> 815

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acaaatcaaa ttaacaaacg cagcccaatc aatataagat gttgacctta taactttcta 120  
tgttgccata ttaaacccac attaagcaaa ctaaagaacg tcattacatc aaataccata 180  
tttcatttgt ttccccatcg agatgantag agatcacatg catccgaaaa gctttttggg 240  
agcggttcca gtggcacggt acttggtgc naattcctct gctttgagaa tttcttctcc 300

acgcttagct tcaancatcg ctctcttctc ttcngcttcn gttgngaagt tgagctatctt 360  
tgttcgnc 368

<210> 816  
<211> 386  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-039-Q1-E1-E12  
  
<400> 816

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aacagaatca ctatcagcat cacaaagaga agatgacact tctacactct ttgagtttct 120  
tttttacaag tgatcaaaan ggataaatag agaaaaacaa anacaaaaca aaaantccaa 180  
acatgaatca ttcacatcat tccagacagac atgtgcaaga tcaaggagaa tcaagantct 240  
cagttctgct tctcacaatc cgatggaaaa cttctcttac tttcctctca aagcggatcc 300  
aagccatttc tcaaagcttc acgaacttga acaagctcat cagnnctctg ttttactcaa 360  
ngtcgggtgg cnacagtcaa cgggga 386

<210> 817  
<211> 385  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-039-Q1-E1-E4  
  
<400> 817

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnngagat gaattgttac aaagatacan 180  
attcaataaa ggcttangaa acatccacac gttgcctttg gtactacacc agtggctcta 240  
tacttagcaa ccatttcttc agctttgana aagctcttcc ccttttttaa gcttcaacca 300  
agtgcgctcc ttctctctctg cnaacttgtg ggantgcaag ctacnttggt cntcaatttc 360  
ctcacgtac tgcgcctttt tcntt 385

<210> 818  
 <211> 385  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-039-Q1-E1-E5

<400> 818

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 cagttcctac aagaaattta gcaaataatta ctatagcctt agatcgagat ctttcgaact 180  
 ttggccttct tcaatcntca taatatcatc tttatcaccc gtctgatttg atatgggcca 240  
 tggtttgacc aatggcggtta tccggcggtc tttgtgacga cngtcctgcc tccangtggt 300  
 tgaccgggta caatctccgg cttgggagga taacgatgat gacctgcgtt ttggttnact 360  
 tggtacggga gccctagccc anagg 385

<210> 819  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-039-Q1-E1-E6

<400> 819

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 gggcaatgag gcagacgctt atttacttgt agcattatta ctgtgactga agcaaaacca 180  
 cttttgtcct tttagaaatt tctcacagaa ccttctctga agctggcctc ttggtgatct 240  
 cageccacca ctggttgaca cgtggacgct ccgtgaaaga gcttcttggt gggagttccg 300  
 ancaagtant gaatcacggg aatgtggtga aagatcggtc aaagtgaaag tttcaccagc 360  
 caaatacttg aactccttca gcccaacctc cgtnggaaat caaggggcct tgg 413

<210> 820  
 <211> 396

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-039-Q1-E1-E7  
  
 <400> 820  
  
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 ctgagaataa accataaaat tctcacagtg accttttgag tttttttgtc tcatgcttcc 180  
 tggagaagag gcgcagcggg tgattctctg gttactgcat caggctcgga atcttcgtta 240  
 tatcgatcca nactattcag gaaaatcccn atggaccaa ttgcancaag ctggaaagag 300  
 aacgactgta anaacaagga gaagtcactc nccaattgtt cacgtantcc ngannaactc 360  
 canngagtgg tgangaaggt tcatctccaa agntcc 396

<210> 821  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-039-Q1-E1-F1  
  
 <400> 821  
  
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 ttttattatt cgttctcgt agtagctacc caaaaaattc aacaaattgg aaaataggaa 180  
 ataataaatt caataanaaa atagnngaag taaatctctg agaggccgct ttagttgtgc 240  
 ttgccatcgt taaactgtgc gtttttggac gacttgaaag tttcaagaaa ctcttttagcc 300  
 ttttgnaact cttgcttctg cctcgacttg tcccatttgt gttcacttgc tagaatctcc 360  
 ancacacgct gnaacgcccg aggcgntgga acagt 395

<210> 822  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations

<223> Clone ID: ARABL1-039-Q1-E1-G2

<400> 822

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nnnnntcata cacgcataca taagagaaca ctgaacacct ctttggccta caaaagcaaa 180  
aaaaccacca cttcatgcag tctaaacgac atcgtttaag ggtgggtact ctgttttctt 240  
cttctcttct ctttttcaan acttgtgttg tgtgttaaga gatnacatgc cgtaagtagg 300  
aggagagctc cctggncaan tctctgatcc tctgtctggc ttctcgaaag catcccgagc 360  
gtcgaccgtc tccctaaaac cgaaaagggg tcccttcccc ccnggc 406

<210> 823

<211> 467

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-038-Q1-E1-C6

<400> 823

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cgncnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnagagagac 120  
gattgccatt taagaaagaa accaaacatt gaaacagaat aactggagg aacatatact 180  
atataatcag agaaggtaga tttatttgat atatattage taatacttgt tcactttctc 240  
nggaacaagc ttgagatgct gcgacttggt catagcaaga ccagtcanga catccatatt 300  
gatatcatct ggtttcatcc cattaggaag tttaaagttg aagctgagga gaagggtcgc 360  
ataaggaacc tcaagcatcg cgcccccaag acgcattccc gggcacattc tccggcctga 420  
cccgaanggt ataaactcgt agtccgtgcc ttgaaagtc aanttcc 467

<210> 824

<211> 385

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-038-Q1-E1-D12

<400> 824

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 gtagctctcg gtaaataacc taatcacact aatgaaactc agataactaa acttcccat 180  
 cagattagag atactctcat actcctgagg attgacatct aggctagttt actatccggt 240  
 ttgtaacaaa accgaaccgg ttgattactg aacgccggac aatttagccc aatctacaaa 300  
 ttgcataccg ccatacacat tgttagcaaa ccggactccc accgtgaatg ccatagcgac 360  
 cacaggggat acgtttgggc gnetg 385

<210> 825  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABL1-038-Q1-E1-D3

<400> 825

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 gcaatgaaat ccatggttgt ctttattctt gattttccag agatttcttt agctcttttt 180  
 tgttcacctt toccatggcg ttgcgaggca agctctccca tatcagcaat cttgttggtta 240  
 gcttgtaagg agcaagcttg tctttagccc aaccgcacag ttctttctaag gttattacag 300  
 gttttgactc atcctctctt ctcttctttg ctgcactctc tgctataatt atcgagtc 360  
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<210> 826  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-038-Q1-E1-D4

<400> 826

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acgcgaatta acatttcggt ccanacaaag aagacttaaa cgaaactggt tcatcaaaaa 180  
agtaaaccac acgaacgata accaaaccag aagtggngac acaaaaccaa atctaaacca 240  
aaaacagagc agcagcacgc aaacaactcn atctttgatt accanccggn nnnnnnnnnn 300  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn ttcgtaacct ccgctaagtn 410

<210> 827  
<211> 399  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-038-Q1-E1-D7

<400> 827

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aaaaaaaaaa attggaanan ccgccgaaat tgggccccat tttataagag tcngaattat 120  
aggataaaag caacaaaaaa aaaaacttgt aaattattag agcgaagaac aaagagtang 180  
aaatgataag agtttganac gaaagaacaa nagatagaag gaagaagaca agacncccn 240  
cgatnaaaaa ccaaaccaca cgttggtcnc cnaagccttg tttgcaatgt tggtanagag 300  
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<210> 828  
<211> 407  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-038-Q1-E1-C3

<400> 828

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tctccaagct catctacaaa ctgatgcgaa taactggcag aagctcaaga ggaactttct 180  
tatcaacagt gagatcacca gcttcttcca tgtccatata tttcttcttc tcaggcatat 240

tccaatcaaa gaagtagagc aaattcaaga gcccgaattc aatggttgcg atcgccatag 300  
ctattcctgg acaaattctc cgaccagaac caaatggtaa caactcaaag ctatgtccct 360  
tgtaatccac aggacaatca ataaacctct ccgggttaaa ctctca 407

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<211> 92  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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agcatccaag gtcttttagt tgaggtttct tc 92

<210> 830  
<211> 407  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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tcgcatcatg cataactcaaa aacattttgc taacaagaat tccacaaaat tttgggtctc 120  
acattcccta agcaagcttg ttttattatt gggcctatag gcccatgcta ttttttttcc 180  
ttatttatgc ttgcagctca ttataacct taaaaataac aacatactac acgctgaaag 240  
cgcatthaatt attccttatt actacaacaa gttcccaatt tttaaatacg cttacataaa 300  
aagcccacaa gtctctaagg attagttgaa attaacttca tacttagact gtcgatctgg 360  
atgaaacaag tccccaaaac ttctcaaagc ttgggttccct tcttant 407

<210> 831  
<211> 404  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABL1-038-Q1-E1-E7



<400> 831

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ttttgaactt attgttggag aattaagatc tctctactat tcctcggtaa caacaacacc 180  
aatctcgect ctctcaagca aatcatagaa gactcttggt ttctctgtct cggtccagtg 240  
atgcatcttc catagcccac cagccgctag tcccaagtgt gagaccaata actaactcct 300  
tcacaacact tgggcctttt aaagttgcgt gtgctatctt gtgccagcc atctctttgc 360  
cactctcact gaaatccaag aaaatgggta tacccaattg tata 404

<210> 832

<211> 408

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-038-Q1-E1-F1

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gaaatcaaatt caggatctgg acttgaatgg aatggctctg atgacaagtt ggtggtaaag 180  
agccgcaaga gctgctccaa tgaatggtcc gaccagaat atccagtggg cgtcccaagc 240  
gtggtccttg ttgtagatga ttgcagctcc aagactecta gctgggttaa ttctgttcc 300  
ggtgattgga atcgtcgcca agtgaaccaa gaacacagcg aatccgattg ggagtgggtc 360  
caaaatcggn acgtgggagt cagagcgct tctcttgggg tcagtggc 408

<210> 833

<211> 414

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-038-Q1-E1-F2

<400> 833

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aagtaatgac caaattttta catcatcgtg ctactagacg nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnntct ccaagaaact tgattgatac 180  
 tgaagcaata caagcaacaa aactatcaac gccgccantc cccacggnga gcttccancg 240  
 tcacctccgg ctccgggact cacgtaagtt gtccgacgac tgcttgaaaa catccccgag 300  
 aagcgcatca aggttctcca tggaagataa ccaacggacc aaagactatt nagaacaga 360  
 ggaatcaaga gaagcgcaaa atttatctgg ctctccgct gaatccggt ggct 414

<210> 834  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABL1-038-Q1-E1-F5

<400> 834

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 cagatattca gtaatcagag ggtaactagt ttcttacaaa gaggaattct gatttaagag 180  
 actgagaaga tgtagagaag agttcatcat ccaacagatg cttgagtagc tttttgtgtt 240  
 gagtttaagg atgcagctgc ggcttcacgc tctgcccga ttcgctctct ccttctctcc 300  
 cagtaaggca agaagcaaga caaagtcata gactggagta atggtctgca ccaacacaaa 360  
 gtttattcca gtgaaaagca agagtccctt caacgggcct tgttct 406

<210> 835  
 <211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-038-Q1-E1-G10

<400> 835

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 aagagatgag tgaagttaca atgattggtg catcaaaatc tgtgtaacnt gtaatctaaa 120  
 naaaatcaag gaagactact agtgtgtata tatgtgtgtg tgtgtatgcc tatacctcat 180  
 gtacaacaga agagaagaaa gaagagttca aaatcaattc aaagatgtct tctgcacaag 240

ggacaagaag catgcctgcg aagccatttg tcatgcatg gtaggtggaa catatgatgg 300  
 cagtgcggca aacttctaac tgtctctccc acctgaaagt cctgaaggca gacangagca 360  
 agagacaatc tccgggagan gtgtccgtga atccggaacc ttagg 405

<210> 836  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-038-Q1-E1-G2  
 <400> 836

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 tttagtcttt ctgtanaatc tatccctctt actaaggaac cctttgcttt gggctcttgac 180  
 aacaatatac attagtgatt ctggttctgt gttgggtgtan gatgttcagg taatcaggta 240  
 cgaaantgcg actggagcag acagagataa gtagttgacg taaccttcan agaccgagat 300  
 cacaaaccga tggcaagcaa gcgcagtggt gggtagagaga catgacaaag gaagtccagc 360  
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<210> 837  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 837

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 aagcccaagt aggaaaccgc atcaggaaga aagaagaatc attgaaacag ancctaaaac 180  
 acgtgtcatg aaaagggttag gtgctgaaga cacgtgagaa gaagaagatc ggagaatcac 240  
 tggtcgccgc cgaagaagat tgctgactcc attgaaaccc agaacgccgc gatatgcatg 300  
 ttgaatccgg tgatagcant tgtcaattcc aaagctctaa aagacanntc ttcagcttca 360

tggaattca acttcaaaaa tcntcccaan ntaaagcgtc aacgggttca acga 414

<210> 838  
<211> 355  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-039-Q1-E1-A10  
  
<400> 838

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gggtgtacaat gaaagcaaat taagtagagg ttattctgac ctacacagatt atgtaacctc 180  
ccgaccaaatt cagttgagct tcantgange aaatgatgaa gccanatcca aagccgcctg 240  
catttngaa gcatccgttc ccngccctga ggcaagacca cctttccent tcccgnaaccn 300  
tccttttaga ggaccantg cagttgtcan ncattcagtg angtcgaacg gggtg 355

<210> 839  
<211> 397  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-039-Q1-E1-A4  
  
<400> 839

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ttgcaaagag ttttactccc aaacagaatc aaaagctctc tatccgacaa aaaagaatga 180  
aacaacatt catctcttca agcttctatg actgggtact cgaaaactac atctttccct 240  
gttagtttcc tgtncacacc caccattgtc tccagcttgt actcantgtc gttctttaac 300  
ttannatcca aaantacctt catgatcttt ggtgccatca agncnggtat ctgggtctct 360  
ttccnacaag cctcagccag gggtnaaccg acatcct 397

<210> 840  
<211> 418

<212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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caaaaacaaa agcaccaacc aacttcataa gaaaagatta catccctaata gtgacatgtc   180
taggcaaggt caagacaaag gagacggcca tcaaagcgac ggntagagca acnactgcgt   240
gaccatcctt tgctgaagct gatcctccct taaccgtgga cgtagctgga gttgccggag   300
actttcctgc nggtgccanc ggggtgtgtt gtggcattgn ttgtngaata cggctgcgtc   360
tggcgagcta ggtgaaaatc ccnanaaagc tttggacaag ttggggaaat gcgagcgt   418

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<210> 841  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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gtgacatctg aaaattacaa acttggcatc tactgatcag caagtaaagg ccggtttcga   180
ggaacaggag tgcacttcag ggaatgagcc atactcaagt ttagtcctcc agcctcatcc   240
atttggacct tgtctccttt gatacnccag tcaaagcatt gcaccatcat tccaactgcg   300
gtgccaacaa gagatataac ccaagacttg atccangann agcctctccg tccactaccg   360
aaangaaatg gtacttaagt tgcttgctcc tcatccnttc ct                               402

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<210> 842  
 <211> 398  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations

<223> Clone ID: ARABL1-034-Q1-E1-G2

<400> 842

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aaccaaat ttaacaaatta agaacaaatt ggtgacaaaa aaaatgaaaa ttctaacc 120  
tttctctnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnngtaa tgactttgtt 240  
gaaacggcgc agacacggcc atccacgggc ggtccaacat attcgggtgc attgangatg 300  
tcattgtgaa gccactcgac tgtggagggtc caactgtgtg ttgctgcatt gggactgntc 360  
acagtaaag ttttccaag gnaaatctgg tttacaca 398

<210> 843

<211> 416

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-034-Q1-E1-E6

<400> 843

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aagctagaag cgcttttttt atgtcacat tgtctgcaaa taagaagacc aattaaagg 180  
ttctctcaa accaagaaaa aaacttttaa tgetcttttt cgtaatcgtc cttgngttcc 240  
aaagttcttg caccaagatc tgtgaaggaa ttgggcgtac tggcatgtgt gggcctttgc 300  
tcaagcttag caagataanc ttggcgatgg gggatgcaca caaggaaaaa cgcccgaaca 360  
tagcaatggc ggtgttccga cgccaaatgt ttgggggcct acagttaggc ccaaca 416

<210> 844

<211> 416

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-035-Q1-E1-A1

<400> 844

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 aaaatataac ctcttcctac ctttttactc aaaaaagaat cccaaaacaa aaaattgaag 180  
 tgaagttaca agtctctgta attatcttcg tgtagagaga ttttatacag gtccctctgg 240  
 gggttctctt ctgatatctc aaagcatcna tacattcgga aagctcccat tcattgcctt 300  
 tgcctacctt gaagaccaa tgtgggcntc angttgcgtg tnangcctgt gaancatacc 360  
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<210> 845  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-035-Q1-E1-A11  
  
 <400> 845

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 ctttaagcttt gagcatccgt agataatcan cgatgattga catcgcanga tgatcggtag 180  
 cccgaagcca aacaggttat aatggttcaa gtaatgatag agcaaataca gatncctcct 240  
 cttctcatnn cccgcttggt ttggcattac cttgaaatac gcattgtaga aagattctcn 300  
 aaatcctgcg caccacgaca ttccaaaatc cgctcgtta ggnccatagg taagaagcan 360  
 gatnaagaat ggnccanggtt cgggtggttct tggncgtaag gc 402

<210> 846  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-035-Q1-E1-A4  
  
 <400> 846

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tcataaaaag attttagat tgacacacga nactacccat tggtttggtg cggtttaggt 180  
tcaaactcca aagatgaata gggtttccat taagacctcc aagaagcagc cagcttgaac 240  
atgaccaccg tgtgtttcca attttaccba tcgngagcta cttaaatac atatanaccc 300  
tacgggtggnt tcaccgtatc cagccaacgc cttccccgtt gccgatcaca atcangcatc 360  
ccgggectca ccgctannta agttacattg gtacacatca gcagggatcn gg 412

<210> 847  
<211> 412  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-035-Q1-E1-B11  
<400> 847

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catctcgagg aaacaacaag gaagagacca naaatcaata gcgggttttt tcaagcagat 180  
ttagcagctt cagctgcttc ttctgcagct tcttcgtctt gaagtttctt canagacgga 240  
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cnttatcccn tcnttgatct nccnctctct ttnaaaccgt caacatccga ngcancttgt 360  
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<210> 848  
<211> 417  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-035-Q1-E1-B4  
<400> 848

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ctagttagag ctaggaaatg gtcttaagag cttcatcttg aaacagaagt ccaaacctat 180  
ggacgcaaac gcaaatatca agacgctctg agacaccaa acggcgccgt ctatcccatg 240



tgaaaacaag ctttcccagc tcagctccaa tggcggtcct ctgctcaaca taccaaagtc 300  
 ctttaacana cccaaaagct gcaacggggt cccggntttg agatgattat catccaaagt 360  
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<210> 849  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 agagactgaa ttgaaaaaaa aaactaagca gtgagaacaa cagcaccacc agcttcctta 180  
 atcttcntct cagcagtctt agagataagc ttagccttca caacgaaagg tttgttctca 240  
 ggcaaatgac ctttcccaa aaccttgaag aaaccatgct gcgtcacatc gatcaacgga 300  
 acattancct tgctcgattt cgccttcacg tcntcaggaa cangttgacc atnancntgn 360  
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<210> 850  
 <211> 397  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 aatgtcaaag gctttttgat cagtagactt caacgttcca ttgcnctgcc ttcttcaact 180  
 gcttcttgta atcaaaccan tcaataccgt catctgcagc caatgagacc ataatgtcat 240  
 caattccttt ctccantccc ttgagtcac acatgtaaac aaaagtgttg gtctttcttc 300  
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397

<210> 851  
<211> 391  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 851

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cttcacctct accatcgaag acaagtggga taaaactctc gcctaaaaac aagcaatgcc 180  
ataaggccca taacccttat ttgattaat ctgtgaggtg aaacaatagc agcaactaca 240  
tatgtatcat ttaagctctg tgagagctcg cggcttcgtt tagctgcagg caacaactgc 300  
attcanaagt gttgcccng aaagagcctt tctcnagtca tgaaactccg ggtattngtc 360  
ggtggccgnc caagtggagg gtaacatcca n 391

<210> 852  
<211> 208  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABL1-035-Q1-E1-E12  
  
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gtatcatcct ccgagttacc ttccggcata tcaacgacgt aagattccaa aaccaccgtc 180  
cagatccgat tctctttctc gctcgagc 208

<210> 853  
<211> 221  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABL1-035-Q1-E1-E6  
  
<400> 853

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 tagctcgata cgaaaaaaaa atagtctcaa atcgaagaag aaaaaacaag taaaatgcac 180  
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<210> 854  
 <211> 381  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 tcttttcttc ctttacttct ataatatggc taccaaaaat aaagtcttct cttaaaagtg 240  
 taaaaagagg aggggtggtc aggttcttaa cctgaccttc tgtaaatgct gtaagccacg 300  
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<210> 855  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-035-Q1-E1-G1  
 <400> 855

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 aaagaatatc aatttggtac aacaatactt ccaatcacac ttttcatttc tttgcttagt 120  
 tttatttcta atcgctaaaa caaagtttac cctagcaaata aacctgtaca cagcgtatcc 180  
 aaaaacacta aagacgatga tgccctgaga acatccaccc aaaatagaaa ctaaacttgt 240  
 gggtgtgcag aaaccttct caagatctac cattaggacc aagaagtagc catagctaata 300

ttctcggacc tgaggtctga acttgcttct gaaagtgttc tcatcagagg ttgcencttc 360  
ctctccttg tggtcnccat tttcntcgt ggcragttag aaancgggcc acca 414

<210> 856  
<211> 386  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-035-Q1-E1-G11  
  
<400> 856

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aagaaatatg ggaatctcaa acatttatta acctaactac ttgaaaaaaa ttaatcaaaa 120  
tttaacgtct ttttaacagac cacgaacttg ttccaaggta aggaacaaga tcatcgtgaa 180  
cggctccttg ctcgtcgccg tcggaacaag ccctttgtac aaagccattg gtccttcttc 240  
tgccaccatc ttcaccgcac aatccaacgg tccaccgtaa atctccttat ccgcattcat 300  
catctcgtc ttcacaacgt cgatgggatt cnacgccacc gccgcgacga atcccngccg 360  
caaaactcgc cgctanatgc gttccg 386

<210> 857  
<211> 476  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-033-Q1-E1-E2  
  
<400> 857

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gncgaccttt tttttttttt ttgaagaaga ggttattaaa ttcagacatg aatgtacaac 120  
agaaataaga gtttttgagg accaaaagcc aaatgcagat aaaaagaaaa gcaagtagaa 180  
atggacttcc ccaagaannn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnncaga cccggtttcg gcttttgcca aagctcttct 300  
ccgtcttatt tacttgacat ggcaatcata aggagaagaa gcaaactt gatctggaac 360  
cactangagg taagcttctc tatatacaca aacaacctct tcttattctc ccgctcaatt 420

gtatacatat taaccgtatc ggattttctcc attaacatcc atnagtcccc tgaagt 476

<210> 858  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-033-Q1-E1-F7  
  
<400> 858

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnng agagaaaaaac 60  
gagttatttg attaatgaaa aaaatacaaaa gtcttgcaaa ttttacatct aaacaagctc 120  
tctttctcct ctcacactca cgaagcaaag actgaagcaa aatacagata aaacttggn 180  
cactttccgg gaacaaagtt ggtggcgaag gcccatgcgt tgttgtnaac tgggatcggg 240  
ccaaatggtc agcaagggtt ctctaaccgg tcccttacca agtgaccnat ggcttgaacg 300  
aaagaaacca anacatanga gaacatagcc aatccttccc gttccttgaa gcccttcac 360  
cttcaaactc aagcgaatgg cctctggggg cggtanccaa aaccaatgg ggtcca 416

<210> 859  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-033-Q1-E1-F9  
  
<400> 859

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agacaaacta aacttgctgt gattctatat ttcgacttct ttgacttcac cacataacat 120  
acacacaagt annggaaatt tgtagttatc ttttaaagac aaagtaaaaa ataggagata 180  
gtttcaatat cttccagcca tagaggagat atgcttcaaa catgatatag cttaatgacc 240  
tgatcaatgt tggcgcgaca aacaggacat cccattttct tgttttcaat ctctttcaag 300  
caagaaatgc atccggcgac atgtccacac ggnacacac actgcttcan aatgggtgcat 360  
ccacacaaat cacanacagt ccatncttct ttattcgcag tttttggaga aaggantta 419

<210> 860  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-033-Q1-E1-G1

<400> 860  
  
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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn caacaacagc agaaacaaaa gcgaccagaa aagtagcacc acctaatagag 240  
 gaagcggcat ttccagctgg aagtagtggt tccgctagag cctgaangtg ttgtgggtccc 300  
 accgcagtg ggaggagtgg ttccctcaa gtacttgggg ttgatccaag ttgctggggg 360  
 tagcaccggc accanggagg tancacctcc caagttgcac caagnagcaa ct 412

<210> 861  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-033-Q1-E1-D9

<400> 861  
  
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 taacgccata gatgaagggt tctttgaact tgtgaagaaa atgtcgaata tgaagcggta 180  
 gtttatgttt atatggtctt ttagcaaata ccacagagaa tcaaaactta actctttcaa 240  
 gattttttga cttgggactt gttgttggtc tcacattatg gtacatgagc aaaagcttct 300  
 ctgtggggnt tcttcctttt cgattttttt ctctggtctt gcttttggtg gagacagttg 360  
 cagacaaca tgnattgtaa tgacgggatt tangg 395

<210> 862  
 <211> 463  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-033-Q1-E1-G2

<400> 862

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 acgaccnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnncg tcaaatatga ctataaatag 120  
 tgttacaaat tttcttatgt tacaaaatta caaaagatac ataaaagttt agtaaatact 180  
 atttggtaga agctctgttt tttacgagag taagaatatt taaatgtatt tgttctttac 240  
 atatcctacc aatatatgtt aactattggg gtaagattct ggagccatgg gcttatactc 300  
 aacaactggg ccattcttac tcttggtttt ggtaattgta gctctggtaa acttccaaac 360  
 ggtagcttca gtgatgaaga aggttctttg gtctctgctt ctctttgttt ctcttcggtt 420  
 ttcgcgtttt cttgatgcat ttggatcntg tttgcttctt ccc 463

<210> 863  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-033-Q1-E1-G3

<400> 863

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 tgccagagaa taacatatca ngtatccata tagatatggg tatttcttat ccaactagta 120  
 atgtacaaga anttattttc anaggacaaa tttccactg tacgaaatca aatatagcat 180  
 acaagaatca tcatttctta aaagaaaaat ctcttaagct tttgctaggc cttataggag 240  
 gaagtccac agatgcaana acaggttctg anctttcang cgcaagagaa tnatgtgtgg 300  
 aagtttcang cttcttgng ttgagactca ngatccaan gttggtgttc atgatgacca 360  
 cggaccngga gtatcnaggg agaaggagaa cntgggtatt ttgcaaangc tccgggtaat 420  
 gga 423

<210> 864  
 <211> 214  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-033-Q1-E1-G7

<400> 864

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
nnnnnnnnnn nnnnnnnnnn caagtaaaaa caaatagaac cattaanaat acagtactca 180  
cactcacaac gacaacgtac gttcncgctc gagc 214

<210> 865  
<211> 409  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-033-Q1-E1-H9

<400> 865

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cctgaatact gatgtataat actaatacaa ccctcccagc aatttggtta agtttaacac 120  
agaagtggat atatatttat aagcttagct tggttcaatc catttctgtg ttaaaccaag 180  
ctaagcttat aaatatatat ccaactggctt gtgatcttgt agctttttct tggactttct 240  
tatgaagaag aaccactat gggcaagttt ggtgcagttg ccatttcagt ccaagacca 300  
tcatagattg ccacattagt ttttcccaga cgataaagtc ccaatgccaa aatacaagct 360  
gttacaccgg ttccacatga ngccgcaatc gggncgtgtcc agaagataa 409

<210> 866  
<211> 391  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-034-Q1-E1-A10

<400> 866

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aacatttttt tacaatcagc taatctagaa gctttganaa caatccaatg ttgatttttt 120



ccantttgac cctctgaagc ttaagtaact acnagttgag agtgtccaag agatgggncaa 180  
 ggagataaca gaggcagggg naanattccc atgtctttac tgtctgctcc gtcccaaaan 240  
 cccttccaac ttgatggcgt taatgganaa ggcacagcc tgaacctgag nttcttcct 300  
 cttaanagct ttacggggtg atcaagctgg ngtttcnanc cgccgtcacc tgtctcttcc 360  
 tcggttgccg tttaaaggaa aataagcctc n 391

<210> 867  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-034-Q1-E1-A5  
 <400> 867

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnga tctgatgatc 60  
 cttaattaca agaagtgcac gaaaatcact agagaaaaag cataattaca aattcacccn 120  
 aaatcattat tcccggccca ganttaaccc ttccttaatt gccctttcac ccttcaattt 180  
 taactttatt cccattttgc cctcctctgt tttttccaca gagaaganaa gagcatctaa 240  
 tcnaatccaa aatctcttcc ggtggtgttt tcangettca attccaatga tcaacggggg 300  
 agtaccagtg taggagacng cnggttggtt catcgggaaa nggaattcan angcttcttc 360  
 tccgagtcag aaaagtcctc atgatngtcg gtctgcccgc angtgc 406

<210> 868  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-034-Q1-E1-B5  
 <400> 868

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 catgtacatg tattaatttt aactgaata aatctataaa aaaatatata ttgcaacccc 120  
 caataatatg aaacgaaaaa agatagaaaa cgcaaaccga ctacggcttt agtacatata 180  
 ttcatatata tgaatagatc atagatgtgc atttcaaagt tatgacctga tcaatggcca 240

ggatatat tttt cacactgttt cnaagatgat agtgcaaagt gtacgtcgag cgtggcgcg 300  
ctacggnccc tacacaacgt tgggtggttaa cgcattcttat acagagggaa ggaagagacg 360  
cctcctngna agtggactga agctgatcat catgggcaat tagtggncgc c 411

<210> 869  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-034-Q1-E1-B6  
<400> 869

nnnnnnnnnn nnnnnnnnnn nnnnacctga agttatgcct caaatcaac attttaaagg 60  
cagaagcatt attagataga tatcatccat aaccataaga cccacattca ctgttaactt 120  
atcgatatta gacagaaaac tttcaacagc gaaatacaaa acaagagaga gaaaactaaa 180  
agacactcat ctacaactca aaatgcgcaa aagaagcagt taaaaaaggc gttgtcacgc 240  
cgcaagggtt aagatttggg atttcatcct aggcctcgaa cccttacatc tccgactaac 300  
gccgggtata agacggtttg ctactactcc cgagcccggt tanaaccagc ttttctgggt 360  
tctggangtt aggaggcaac actttgngt gggacatata aagggaataa ggcaaaat 418

<210> 870  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-034-Q1-E1-B8  
<400> 870

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tcctctcaca ctcacgaagc aaagactgaa gcaaaatata cgataaaaact tggctcactt 180  
tccgggaaca aagttggtgg cgaaggccca tgcgttggtt ttaactggat cngccaaaa 240  
tgggcagcaa ggntctcnat cggccccta ncattgacga tggnttgaaa cgaanaatcn 300  
aagacatana gaaacanagc caatcttcng ttcctgagcc tcnttcacct tcaagtcann 360

cgaatgcctc tggggtcggg angccaaaac ccaatggggt ccgaagctgc caaccggggg 420  
t 421

<210> 871  
<211> 390  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-034-Q1-E1-D2  
  
<400> 871

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ttcagaaaag aaaaaactan nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
nnnnnnnnnn nnnnnnnnnn nnnnttaagg aaaagtaacg agtatagcgt ttataaataa 180  
agattcgaat tgggcaacct cggaacgggc aaggcaacaa gaggggactt gagcttcaag 240  
acaatcccaa actttctttt caaatccaaa atgtggccct tccggtatct tccaatcaaa 300  
cgaatgcaat agcgtcccga gagtgtacaa aatcatcctc tcggngaagt gctataacctg 360  
cgcaaattct cctgccagat tcaaaacggg 390

<210> 872  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 872

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aaacaaaata attgattgta acagaaacac aaagtttgag taaagtgata accaaaaaca 120  
aacaacaac atcaaaagat ctctcacatt ctgcgtcggg ttggcaccaa ttctggattt 180  
cccttcttca tcatcgctac aaattcttcg tagttgattt ttccgtcacg atcgggtgtct 240  
acttcagcaa tgatctcttt gatgngattt atcatcacc atgttgattt tcttcattggc 300  
tagctctagc tcttccattg gttangtacc gctgttgga ttgtcannag aactggaant 360  
ggcgggtgtac aaagtgatcc tcaagtttcg attccgggtc anaaggcaat tgggg 415

<210> 873  
 <211> 426  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-031-Q1-E1-G4

<400> 873

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tatgtgatcc tcatgggctt cacaagtcaa tgaagattgg gctgggccga agtagactct  180
gacttaacaa aacgaacaag agacaacttt gcgatatcgg aaacggcagc atttctnaacg  240
gcggcggaat cactgatgag aaactcatac gccgcttcga aagcttctcg ccagaaccga  300
ggaaccttaa cgccaccgga gcgtccgtac acatcccaca tctgtctcan cactttctct  360
ctctcttcaa tttccagaac gtcnagatta tcgcccnaaa agagaatgcg tttaacgccn  420
ttagga                                         426
  
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<210> 874  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-031-Q1-E1-G6

<400> 874

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cccttgggtcc tgaaaatcac actanagtct ttgaacanaa aagagttact ttcatacaaaa  180
tgataaatac tagccaagca agcgagagct ttttccttcn tttgacagat cccgttttac  240
ttcgttactg cacaaatcct acttagattc catctccaat gcctttttac ttacctttca  300
tgagtcacaa aagtctagta ngtgggaaac agagcanaat gtcaatcatc aagctgggga  360
ccgttggatg aacaagaatc tacggtggaa ggantcatcn cctgggttga cgaatgaaan  420
aaag                                         424
  
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<210> 875  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-031-Q1-E1-G8  
  
 <400> 875

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atcaantccc cctcctaaac aaaatacatt ttgccatcca tacaagtttc caaatctccc  180
tcatcaattc acattttgcc accaccatct acaacacctt tttgcaactc taatgctccg  240
gctccatcat ctgaggagat ttagaaagcc cctatcaaatt attaccgctt tctccatctg  300
atattttcttc aagctttgcg atggcatcca taagagctaa nttcatgatc tctcaagcac  360
tctctttgcc ttctctaact cngctgggtt ggggttaact gacccaaaaa cttttccacc  420
  
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<210> 876  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-031-Q1-E1-H1  
  
 <400> 876

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caatctcaaa tctctggcca ctttattggc taaactctgt atatatacaa tatgatgctg  180
ataagacccg atttggtttt tctgctttct cattccttag agggatcaat ggttgtagta  240
agaactcgaa gaggtctcaa tgacagattc cgagattcta gcttctgatt tctcgttcga  300
gtaagtcgaa agtatagtga cccaaataan gtcacacgca atctanccag agaagtcggt  360
gttctactgg gaacaaancc gtatntgatn aaatgagcca atgggcaaag cttt         414
  
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<210> 877  
 <211> 384  
 <212> DNA

<213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-031-Q1-E1-H2

<400> 877

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gacagatgaa ttaatggaaa gggtttaaat tgttgctcgg atgctattct gaagaagaag 120
aggatgggtt tgcttcaaca acaggtttgc ctttctctct aagtttagca atggaagcct 180
tcattttctt tttacgcttc ttactcgcca ataccttggc ctgaactccg gtcacggtcg 240
ggcttttctt ctcttaggt ggtggtggag gcggccgtct tgctgccgcc attgcctcct 300
ccttagcggc cagagcgctt ccaactccata ncgcaccgcc tancccccacc aaaattgtcc 360
tgcgattaat tggggggaac tgca 384

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<210> 878  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-031-Q1-E1-G3

<400> 878

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aagtcataat gtaacttcac tgtataaatc ataaatcttg tttctttttg tgggcttaag 180
ataaaattct ctacttagc catcatgact ttgacnaatt cttcatagtt aatctganca 240
tcgccatcaa catccgcttc tcggatcatc tcatcaactt cctcatcgga tancttctca 300
ccgangatth gtcatganat gtcgaagctc tgctgcacat atgaaaccat tctggtcctt 360
tatnaaagac ctaaaaagct tccttgagcc cttcctctga atcagtgtcc gtca 414

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<210> 879  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-031-Q1-E1-H3

<400> 879

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tgaatatgta agctcctaca cgaacaagag aatatctaga caatttactt gacggtgagt 120  
ttcccaacca taccagcacc ctggtgcggc gcacaataga aaccgtaaga gcctggctct 180  
gtcaaagtaa cctcgtaagt ctcccctgca ccatttagaa gcgctgtctc atccatcgag 240  
atcttgcttg cgtccacacc actagggatc tcgtcttcgt cgaacaccac gttatgtggg 300  
aaccctgcgt tggtcttgaa nacgatcttc tctcctttag ncaccgtgaa ttcaganggt 360  
acnaaagcaa gggaaccgtc gtccgatnct aaaagaacct ccatggncat cgca 414

<210> 880

<211> 406

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-031-Q1-E1-H6

<400> 880

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ccaataaaac acttacacta gagaggaaat aataaggcca aaacatacac acgcaagcaa 120  
gaaattaact ttgaaacat gtattattac ggacttgatt gcctcttcat caagattgaa 180  
ggcttggttc aaagaggacc tggaaaagtt ccactctccc tctgctcgtt ccacttgta 240  
accattctc caggacagag ggcacggtaa tacttggaac acctttcaca gtcattagac 300  
tcctctccct ttgcagttgt acanctgtga aactcgatgt accgagtga gacgtgcctc 360  
gtcttccang gctgatctga ttcaatgaaa ttggagaaat tacnga 406

<210> 881

<211> 416

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-032-Q1-E1-B3

<400> 881

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gagtgggaag agatacatat acttttgttc tatgaacaaa tcgaaacttt aaaccaataa 120  
 taaaagtact ctcttatcaa aaaaaacata aagacaattc ttctctctct catttaaacc 180  
 caaagtaaag gccacaacaa caatggcaca tcagtcaccg accagattgt cccatgaatg 240  
 aagtgcaga acaacanacc cattaaaaaa acttacattt ccangtatgg aatgtanaat 300  
 caaacttgat attgcctttt catctcaana ccaagatcac aagacaattt cactgcttaa 360  
 agccaccagn attgggnnct ttgggttacc ganggggtggg agaaagaant ccgtct 416

<210> 882  
 <211> 391  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-032-Q1-E1-B4  
 <400> 882

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 caaaaatatac tttaaaaatc tgtggaaaaa aacagagaaa taaattttat taaataaaaa 120  
 attcaaaacta aactagaagc atcaggtaaa ccttgacgcc aatcgtcac tcctactaag 180  
 tgggccgaaa cgcgacgggt tccgcgcgtg cgaattcacg tttccggtta cgttaaaggg 240  
 aaagttggga agcttcgggt tggttgttta aacgggagaac gtcagttccg acaaaatggg 300  
 aacaattaag gatgatcctt aaagccacng tcncaaatac ataacacgtg gaaangcgtg 360  
 tttanactcg ccttaatttg cenggagttc a 391

<210> 883  
 <211> 368  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-032-Q1-E1-E9  
 <400> 883

tttttttttt ttttaacaaa gatcaagact ttatcaatgc catcataact tacataactg 60  
 agtcatacat atcaattcgc ttattcagtc tacaactagc aaagatttct aattcctgta 120  
 aatcacatac tgtagattcc acattcgagg tcctcaaata tcaacttgca gcaagaagct 180



tttgcaactg accactctcc aaagcagctc caagatcatc tgatccacca atatgcttgc 240  
 cgtaacaaa aacttgctgg acagtaacgac gaccaacgaa ttctaaaagc tcatactgga 300  
 tttgatctcc gtctctctc tgatcaagct ccacaacaaa tggctcttcc ttaagttggc 360  
 tgaanaga 368

<210> 884  
 <211> 261  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-032-Q1-E1-F9  
 <400> 884

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn acatgaaaac aaagttcttt 60  
 ttattgagat atctgaatta atcagactga atacaaatat ggcaatccgg agtaatgaaa 120  
 ccacgcactt ggcttggttt attcaaacca taattattca ctctagttac cactgagtan 180  
 tangcnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 nnnnnncggt ttagttgttt t 261

<210> 885  
 <211> 355  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-032-Q1-E1-G12  
 <400> 885

tttttttttt ttttgaaaaa taaaaaatct ctatattatt tacattatcg cctaaattca 60  
 aacctcactt ttcacatata gaatatgtac atatctaaca aaagggtaaa aatagtaaca 120  
 aaagtgaaaa ggtagaaaat agtanaaaag agttaaagaa ctttttcatc atcatcatct 180  
 tcttccaccg tcgttattgc caccgccggc tccagggaaa ttacagaaa cccgaccggg 240  
 attcaattcg ggtttgacc cgtttgaaat ctgagtaagg acaaggata gtgantccac 300  
 cttcttgaga aaaccagat tcgtctcag nctctctaa agaagctcac caggc 355

<210> 886  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-033-Q1-E1-A8

<400> 886  
  
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 catacacata gtcataccat aaaccattag tgaaatgcag tacaaaaaca aggttttagat 120  
 aacagagccc gtttgaggcc caataagccc aagaacctca tccaangac catgactttg 180  
 gncagctgaa acnaagctca acangnagtg gagctacaag gcagcancag tccaataccc 240  
 tccaagatc tcttggtttt taactgctct ttttcccaa ccacanttac ccaatcanna 300  
 gaaanctang cctcacttcg tccaaaccaa nattcctctn caccatcctc tgcagccaag 360  
 tctacactc cncnctccg tcccatangt agaaatcctt tcagncactt gtctgaata 420

<210> 887  
 <211> 400  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-033-Q1-E1-B8

<400> 887  
  
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 cacannnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnngt agcaccacct 240  
 aatgaggaag cggcatttcc agctggagta gtggttccgc tagagcctga angtgttggtg 300  
 gtcccacccg caagtgggag gagtgggtcc ctccagtact tgggggttgat ccagggtgct 360  
 ggggtangca ncggcagcag gagtagcacc tnccagttgc 400

<210> 888  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-033-Q1-E1-C2

<400> 888

tttttttttt ttttttgaag aaagtgaatt ttttatatat aataagaaac ataggactgg 60  
atcagactgg gaaccangat gaatattcat aatgggtgaat ccttacaaaa gactacacag 120  
acacaacaca tgagttttga gaccgtgact aggttgatta gagatctcaa ntgctagagt 180  
catcatcaac ccagaaacaa gaatcctact tttactgaca ctcttgattg ttacacgcag 240  
aaataatana gacacaggaa aagagaatta actgaactct gcaagacttt tanngtggac 300  
tcacatgntg gtgcatcggc cctttncnt cggtttgggt gcgctggcan tttgcnggga 360  
accggtgtga ctctgaggga tttgtatgtt naact 395

<210> 889  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-033-Q1-E1-D2

<400> 889

ncnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60  
nnnnnnnnnn naaggccaca atgccgaana cttcttttan aaancatttt gaacanactc 120  
aaaagccact aacatttggt ttancgctag ttttttgagc cgggtgtanan agatagatac 180  
acatgcatga aaaatgacct aaagtgtgtt aatgttattg ttanaaggac tgcctatatac 240  
catcccatcc tccttcgggt tctttcctct tcagaacacc acctgacatt tgagacattc 300  
ntgcntgata ccccttcgac ggtacggaan gcagaggaag ataactgcct tganacnang 360  
tgtttgantc ggcgcctccc ncngtttcan gacctccaag ganccagaat 410

<210> 890  
<211> 393  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-C5

<400> 890

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agatgttatg gtcaagattg atgcaaacag gccaaaagaa gtggttttcg aggagaccca 120  
gactctactg tctcagatac agttaaagag aatgataaag actgataaag catctcctgt 180  
tcaggataaa tggagaggaa taccgacgag attgaataac attccacatt cgagggatat 240  
cagggcttat ttttatgaag atgtgctgca agccacaatt agatctatca aggatggtaa 300  
cacccgtctt cgggtggaca ttaatatccc tgagctaaat ccggaaatgg atgtttaccg 360  
gataggaacc ttgatggaac ttgttcaagc ntt 393

<210> 891

<211> 456

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-03-Q1-B1-D1

<400> 891

ccgaagagct cagaantcgc gnccacncgt acgtaagatc ggaattcggc tcgagaaacg 60  
atacctaagc tcaattatct tctctgcaac aaactccaaa ggatccgaga gagagagctc 120  
tggaacgata ttaacatata tcatgaagaa aaagattgaa gtattgatat gggataaact 180  
aaaacttctc ctaatactac aattctcttg aagactttnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
ggattcgacc gatcagattc tcccaattta acaactcagc agaagcaaga gcatcaaagg 360  
gtagaagatg gacgaggaat cttcagtcgc cggaggtaag gattccgggt ctacgaatca 420  
agccggtatg ttatcccgaa atgttaaatt tcccc 456

<210> 892

<211> 398

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-03-Q1-B1-D10

<400> 892

tcgagcaact acaaacagta ctggtctttc ttccgccgtc caaaagaaat cgaaaccgcc 60

gagaaagttc cagacttcgt cgacacattc tacaatctcg tcaccgacat atacgagtgg 120  
 ggatggggac aatccttcca cttctcacca tcaatccccg gaaaatctca caaagacgcc 180  
 acgcgcctcc acgaagagat ggccgtagat ctgatccaag tcaaacctgg tcaaaagatc 240  
 ctagacgtcg gatgcggtgt cggcggtccg atgcgagcga ttgcatctca ctgcgagct 300  
 aacgtagtcg ggattacaat aaacgagtat caggtgaaca gagctcgtct ccacaataag 360  
 aaagctgggt ctgcacgcgc tttgcgaagt cctgtgtg 398

<210> 893  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-03-Q1-B1-D11  
 <400> 893

agggacaagg cttcgcaagc ttcacttgtc gttcgttggg tcagatgaag atcatcgttt 60  
 ggtgaaatca ggagctctta ctgatctcga catgttttat ctggcttctt tgtacttttc 120  
 ctttaggtgt gataccaata agtacggtcc tgctggaacc tatgtgtctg ggaagcctct 180  
 ttgggctgca gatttgecta gctgcttgag ttattatagg gttaggtctt tcttagctag 240  
 gtcagctggg tttcagactg tggtgtctgt accagtgaat tctggagttg tggagcttgg 300  
 ttctttaaga catattccag aagataagag tgtgattgag atggtgaaat cagtgttttg 360  
 tgggtctgac tttgttcaag gctaaagaaa ctccc 395

<210> 894  
 <211> 458  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-03-Q1-B1-D4  
 <400> 894

tggntcgcca gaagagcaga gaagtcgcgg ccacncgtac gtaagancgg aattcggtc 60  
 gagatgcaaa gaacgagaca gttgttgctg tcgagtttgg tatctccagg acaggaaaca 120  
 gtgcaagaat tttagttggg agacctgaat ctgctgaaat tagaaacctt tcgtttgtgg 180

gtgacttgat gatggacaat ggaaggactc tgagctgtat gattgagtat gaggcaagtt 240  
ctaagagaat gatggttcga ttcagaaaaat ctggttcggg aaagctgttt gatccgttct 300  
tctctttctc ggtagacttg gccaaagtat ggaaaggtgg tgaagtcact gtgggtttaa 360  
gctctgccaa tgggaactct tcttccaagg cacattttct ccattcatgg agatttgaaa 420  
taagacatcc tcctccgatg tggatgcatt cagtgccg 458

<210> 895  
<211> 451  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-C3

<400> 895

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tgctcatgat gaattcaatg gagcttcttt tagtggcgcg gtttttaacc tcgccacgac 120  
tataattggg gctgggtatca tggctttgcc tgctacaatg aagattcttg gacttggact 180  
tggaatcacg atgattgttg ttatggcttt cttgactgat gcgtcgattg agttcttgct 240  
taggtttagt aaagctggga agaatcgatc ttacggtggg ttaatgggtg gttcttttgg 300  
taatcctgga aggattttgc ttcaagtcgc ggtttttagtt aataacatcg gtgttttgat 360  
tgtatacatg atcattatan gtgatgtgtt ggctggaaag acngnaagat ggtaaccanc 420  
aattccggtg ttctctgaaa ggatggggtg g 451

<210> 896  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-D5

<400> 896

natcgggaatt cggctcgagg ggaatagctg ataaatatct gcctcagtct atagcagagg 60  
aatttgagaa acagaacccc caaatgtta agcttcgact catcganggt gctgggcatt 120  
tgctcaaga agactggcca gagaaagtag ttgctgcct ccgagcattt ttctgacttc 180

caaatacaac aaaaaaggac agaggtactg ttttggtggg gtgttttagag tcttacctct 240  
 ttgatggatg tgtgcaaagc ttcacattgc tctttggaga ggctagaagc agtctgcaac 300  
 ggggtggattc tggcctgcga naaaantaaa ctagaantta atcgtacagc atgtaaacc 360  
 gtttcttctg gtcgtcaa at gtncaagaag nacaagggtg gatactttgt gaatca 416

<210> 897  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-03-Q1-B1-D6  
 <400> 897

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 taatgttcat tcgggtttcc gctcgaccgc cgacattcgt cgaggatttc aaagccgcct 120  
 ggtcggaatc tcacatccgt caaatggaag acggaaaagc tatccagctc gtccttgatc 180  
 agagcactgg atgtggattt gtttccaaa gaaaatatct attcggacga gtgagcatga 240  
 agatcaaact cattcccga gactctgccg gtacgggtcac cgctttctac atgaactccg 300  
 atacggccac ggtgagagac gaagctaaat tttgagttcc tgggaaacag aagtgggtcaa 360  
 ccttactcag tgcaaacaaa catatttgct caagggaaaa g 401

<210> 898  
 <211> 399  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-03-Q1-B1-D9  
 <400> 898

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 agactttgat tgtaagtgtg ctcataatga gtctgttcat ggcacaaaat caagttgacg 120  
 caaatatttg ctgtccgtcc atccaggcta gaactttcta taatgcttgc ctcttcgcgg 180  
 taggtagccc gtcaagctgt atacgcaact cgagttgtct tgacattagt gagtcgacat 240  
 gtcttagagg atatacgaat gacattctcg aaaacacagg tgatgctgtc actgaatact 300  
 gcaagttggg gtgtgtatcc tctgtttgcg gtgctttaac cattctccag aactccgatg 360

caagtgaaat cgtgaatgga gaagttgaaa aatgtncca

399

<210> 899  
<211> 434  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-E1  
  
<400> 899

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tatcttagca tttgcagaaa gattttactc tgctgatgaa gtcaagtttt tgtcaacttt 120  
accggaccct gaagttcaga gaaaggaatt tattaagtta tggaccctaa aggaggcata 180  
tgtgaaagca ttaggaaaag gcttttctgc tgcacctttt aataccttca caatccagtc 240  
caaggttgga acaaaaggag aatacaatct ttgcaagatg actgaaatga ctgcaagtgc 300  
gctggaggag acaaacaaat gcgatggaga atggaagttt tcccttttgg agttggatga 360  
ttctcattat gctgcaatct gtattgaaga tgatgaagct agtggaggag ctccatgaa 420  
ggtgattgtc ccaa 434

<210> 900  
<211> 394  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-E12  
  
<400> 900

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gggaccggta ttggttagtt gttaactata aaggaagagc atacactcaa agagttgagc 180  
caacccttgc tcttggtgaa tcggagttgc ctaaggaagc cttcttggaa gattgggagc 240  
caacaaatga ctattgttg gtgataagag ctcttggtat gagtccgtta aagataccgt 300  
tgactaggcc aagctcggta gcagaaggtg tgcgatgtg ggaatggtct ggctctgctt 360  
ttgatgaagg agaagaanct gcgaaatggt tttc 394



<210> 901  
 <211> 458  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-03-Q1-B1-E4

<400> 901

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cctctctccg ccgctgtgac agaggaaatc agcctcgcta ctcagcttaa ccgtgcttca  120
tccgatcaaa ccaccgcatac tgagcaaaaag gaagtcactg atatcccgca ggaagttagc  180
ggcggcgatg atggcgctaa gttggaggat ctggtgaatt tcctctactt tggttcactc  240
ttcgacgtca agtcacagaa cgagttcact togataatgt tgaccaggac tcatgagaga  300
agttgctgct tgtcttacga ttacgttacc gatgatgcca ctgatntcct cggngattgg  360
gaattggntt ccaattccca actttgggac ccgatggntt cccgtccggt gggattcaag  420
cttatctcaa caaagaacgc tttgggagcc gttgttgt                               458
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<210> 902  
 <211> 397  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-03-Q1-B1-E5

<400> 902

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ggttgctgga atcggagttg gtaaaggagg attcaaggga tttggatttc ctccggcgac  120
tgagcagttt cgtgttaaaa ccgcggcggc tgcggcgctg tctaaaccgg tttcggcttc  180
gattacatcg gcggttcatac cttctgttga agaagatggg atgattatgc agagaccggt  240
ttgggatgat tgggaatttg ctgaagaaga accgattcct agggttgttt ttagcaaacc  300
tcctagtctt gaagaagcta aagaacctac tgaagatctt aaagaagcaa ttaatttggt  360
gtanatgtca tcctccaaat ctctgctgct atggnaa                               397
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<210> 903  
 <211> 400  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-03-Q1-B1-E6

<400> 903

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atgcggtgcc aggtgacacc tccgtcagaa gagactctca cgtgtggcac ctgtgtcact 180
ccatggcacg tgtcgtgtct ctttcctgaa tcactcgctt cttccactgg agattgggag 240
tgtcccgatt gtcctggcgt tgtcgttccc tccgcgcctc cgggggtaccg gaatctccgg 300
acctgaatct tccggttcag ttctcgttgc tgcgattcgt gcgattcang ctgatgtgac 360
tttgaccgaa gctgagaaag ccaataagag ggaagagact 400
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<210> 904  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABL1-03-Q1-B1-E7

<400> 904

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atctctagtt acacactaca ttgctgagcg ggattcttcc actgtcaccg tcaaggtttc 60
aaaaactgaa ggagactggc agaggccaaa ccgccgtgtt catgtccaat tattactagg 120
aggcgggtgca atgcttgatg cttggggaat ggatggagag tttatccaca ttaaggtgcc 180
ttcagaaagt ggaatttcag agttaatatc cacaagcaat gagcgcttta aacttcatat 240
ggaaaatata aaactgatac ctgagaagga agtgggtacc tggacaaaag ggaatggaac 300
tttcaaaggg accaagtttg agttaagcag tgggtgattgg gaaacctaata aataattccc 360
tggggggttg tgggaaggat aatggcctat gacacatggt tccctcaagg aat 413
```

<210> 905  
 <211> 480  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-F3

<400> 905

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ntcggaattc ggctcgaggt ggtggagatg gaaatgatgg tggattttgg gggaaattgt 120  
tttctccttc accagcgggt gctgatgaag aacaatcacc ggattgggat tctcatggtt 180  
taccggcgaa tatcgttgtg caattgaaca agcttagtgg tttcaagaag tataaggtat 240  
ctgatattat gttctttgat cgacggagac aaaccactat tgggtactgaa gattccttct 300  
tcgagatggt ctcgattcgt cctggtggag ttacactaa agctcaattg caaaaggagc 360  
tttaaaccct aagctacttg tggaatgttt tganaaaagt tatttggaag ggaaaacgaa 420  
acctgatgga aacccaagtg ttacaaaccc cttttgccga aaagtacatn gcaaactctgc 480

<210> 906  
<211> 329  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-029-Q1-B1-F7

<400> 906

gctaccgttc gccttcttcc actgagctcc tggagtctgg taaccattct cctacatccg 60  
actctgttga cggaggttaag atgacggcga agcgtgggat tggacggcac gaatctcttg 120  
ctgacaagat ccaacgccat cgtgggatta tacttgtgat ttcggttccc attgtgttga 180  
tcggtctcgt tcttctgcta atgcctggga gatcgatttc tgattccgtc gttgaagata 240  
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<210> 907  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-029-Q1-B1-G1

<400> 907

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cgacgacgtt cttttcgggtt ttcttgacga aggnnaaccag tcaccggaag atttctccgt 120  
aaacctcaac gccggcggaag atgacgggtga cgaagacgac aataataaca attctgaana 180  
taacaaagct ttttggcagg aacacgaaca acttcttcag gggacactgt ataggacaag 240  
ttccattgag acaaagatta gacaagctac aaaagaagcg ttgaaacaag ttaaattctaa 300  
aggtccttaa tgtgtttgcc ggcgaacaat tgaccgnggg ttgccggant tgcctacgtt 360  
gncgaaatcc tccanacacc taagagattt ccccggttac gaattgcgtc aaccccaa 418

<210> 908  
<211> 375  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-029-Q1-B1-G4  
<400> 908

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gaatcttggt cttcacagct ctcttcgggt ctcttgctcg gtggtctttc gtttagttga 120  
tcgcgagctc cgcaatgtca ttttgtctag gaggcataag aggcgttggc gggagctttt 180  
gttgcttttg atccgttagc tttcccaaaa tcttctcaag cttattgtaa ccttgttttt 240  
aatttctttt tgctttgggt gctctacttt tggtaaaact ttggtattaa ctttaactcaa 300  
tttaaaatga tatttaaaaa gttaacaaa ananaannnn nnnnnnnnnn nnnnaaaaaa 360  
aaaagggcng gcccc 375

<210> 909  
<211> 112  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-029-Q1-B1-G7  
<400> 909

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tcnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nn 112

<210> 910  
 <211> 399  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-029-Q1-B1-H1  
  
 <400> 910

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gcgtgaagca atctccaatc naatcgcagc atatcttctc cgattcctat tcgtctctgc 120
aattgaatct tccggtaggc gaagatggcg acgtctgcga ggatttggtg cggaggagga 180
agtgcacgcg ccgttcgttg tgatcgtcgc acgttaaatt tgaattctcg atcgatcatg 240
gttggtccag tgacgaatcg acggaatatg tgtgcgatcg ggaagatttc gatgtcgatg 300
gangattttg tcagcaacgt ctgccgcggt gaagantgaa aggatcgggtg gaaggaaacc 360
cngtggatct gttgtgtcca aggaaaaact anatgtgtg 399
  
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<210> 911  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-029-Q1-B1-F4  
  
 <400> 911

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cccgcgcgcg cgtcggagcc ttccaaggtc gctgctcann nnnnnnnnnn nnnnnnnnnn 120
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn caccggtgcc 180
gccgcaacca ccatgccagc ggaatccaat ccttacgttt ctcttcccc tgccccaagg 240
aatacgatgg attcgggtgaa ggatacgtta gggaaatggg ggaaaatggc tgccgacgcc 300
accaagaagg cggaggatnt cgccggaaat ttttggcagc actttgaaaa caaggccaag 360
ttgtagcaaa tgctgctgtt tcacgaattg ctcannggac aaaatac 407
  
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<210> 912  
 <211> 395

<212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-029-Q1-B1-H2  
 <400> 912

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tatccatacg gattattcct ttggttggtcc tgttgatatg ggagcttcat ggttacatgg  120
agtctctgat gagaatccct tagctcccat tatacgccgt ttaggactga ctttataccg  180
aactagcggg gatgactcca tcttgatga tcatgatctg gagagttatg gactttttga  240
catgcatggg aataaaattc cgccgcagtt ggttactaaa gttggagatg cattcaagag  300
aattctcgaa gagacggaga aaataaggga tgaaactgcc aatgacatgt ctgttcctca  360
aggaatatct atcgtcctgg atagaaatcc aaaac                                395

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<210> 913  
 <211> 505  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-029-Q1-B1-H3  
 <400> 913

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aattcggtc gaagcatgaa tccccatgcc aaaagagggt caaaacctgg gactaaaatt  120
cttcgccccct ttcaagcttg ttagctatct ttatagatcc cctcttcttc ttctcataa  180
aagtccaaga gcaaaacaaa tgtattatga ttgattggcc gatgactaaa gcatttgtag  240
ctgtaagaag tgtaacagat gttatattca ctatgaacat tctacttcag ttccgattgg  300
cctatgtagc tcgtgagtct acggtagttg gagctgggcc agttagttag tcatcccaaa  360
aaaattgccc ttcattacct caaaggaaag tttttccttg acttgttcat aagtgatgcc  420
acttccacaa gatattgata ctaagggata ataccaacac anttgggtgc atccccgggc  480
aaactatgcy aaaaaacctt ctacg                                505

```

<210> 914  
 <211> 421  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-029-Q1-B1-H7

<400> 914

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ctaattcctc atcgctcgat caattagatt atcttatccc aagnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnngtcgt 240  
cgcagcttcg gcagacccat ctctgccttt ggaatggaga ttctctcagg tcttcggtga 300  
acgaagcgct ggtgaagaag ttcaagaagt tgatataatc tcagcgattg aatttgataa 360  
ttctggaaac catcttgcta ctggggaccg tggaggacgt gttgttcctt tccaaaagaa 420  
c 421

<210> 915

<211> 402

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-03-Q1-B1-A11

<400> 915

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tttctctctc gcattagtgt tttaggata aacatggcag gagaagggtga agaagatgta 120  
cctagagatg ctaagattgt gaaatctctg cttaagtcga tgggtgtaga agactacgag 180  
cctcgtgtga tacatcagtt tctggagtta tggtagcgt atgtggtcga agtggtgaca 240  
gatgctcagg tttactcaga gcagctagc aaaccaaca ttgactgtga tgatgtgaag 300  
ctcgtattc aatccaaagt taatttcagc ttctcacaag cctcctocaa gagangttct 360  
gcttgagctt gctgcaagta ggaacaagat acctctggca aa 402

<210> 916

<211> 397

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-A12

<400> 916

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gatcaaccga cagataggat ggtcctcaaa ccgattgaaa gagttccaga gcatgcaagt 120  
caaaggccag tgagttctcc acgtgacatg agaacgagga aattcgacca aaaggatggg 180  
cgaaatgtaa gcgacattgc cagatccgaa actcagagga gaaactggcg tgaaaatgaa 240  
aacaagagcg caagacagca acagcagact caggagaaga caagacatcc atcaccagag 300  
acatggcgaa agccggttcc ccagaaactg gattcaccaa atggaacagg gattcgtcac 360  
ggaaaagcag cttctgctcc tgagcctaac tcaaanc 397

<210> 917  
<211> 462  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-A4

<400> 917

ggntcgccag aagagctcag aagtcgcggn cacncgtacg taagancgga attcggctcg 60  
agtgcagaa gagaatctgc ttacaaaaga aagaaggcag tgttaagtct ctgatttctt 120  
cttgataaca ttactactat gtacagattc agcaacacag ttattgggggt cttaaaccctt 180  
ctcaccttac tagcctcgat tccaatcatc ggaaccgctt tatacaaggc aagaagcagc 240  
acgacatgtg aaaacttcct ccagacgccg ctacttggtta taggattcat cataactcata 300  
gtttcccttg cgggattcat aggagcctgc ttcaacgtgg catgggctct ttgggtgtac 360  
ttaagtggtc atgatctcct catcgctacc ctaatgggtc taacgctatt tgggtctggtg 420  
ggtgacgagc caanggaggt ggagtggaag tgncaaggga ag 462

<210> 918  
<211> 405  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-A9



<400> 918

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tcatcagctc gtgaattcct gggattcttt caacatgggtg caagattact tggctgggtgg 120  
tctatcgatg aaggaagtcg ggaagaacaa gcaaggctct actctggaga agctactgga 180  
tacaacacct tctcaccaga ggttgtgaag aaaatgcaa agtctgatct tgttgaagag 240  
atatggagac ttcaagctgc attgagttag caaacagata tcaccagtta tagccagcaa 300  
gagtacgaaa ggcttcaaaa cgagaagatt cttttagtag tttgctttga agatccgatn 360  
aacgtgggtc tactcccaat gtagacatta cgtcctccgg aagta 405

<210> 919

<211> 397

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-03-Q1-B1-B12

<400> 919

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aggtagagaa actcaaactg gcaagccatc tcttctgctg gttcatgagt atctagtgga 120  
ggcctacgag actaggggtg cagaacagga gaagaagaaa ctattggatc ctgtgccact 180  
cgatgaagaa gctaaggcca aaagtacgcg tctaaagcgc caatggggaa cgtgctgggtg 240  
ggagcaatat tgcatactat tctgcagagg actcaaagaa cggcgacacg aatacttcag 300  
ttgggtgcgt gttacgcaag ttctttccac agctgtcatt ttaggtcttc tctgggtggca 360  
gtcggacatt angactccaa tgggactaca agatnag 397

<210> 920

<211> 407

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-03-Q1-B1-B2

<400> 920

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tcacggccgc gctgaaatcc acgaccaagg ccgcgctgaa atccacgacc acggccgctc 120  
tgaagaagaa gactctctcc gtctcctccc ttctcctcct ccgtctaaga gacaaggcat 180  
ccccagacgc catgatctct ctcaactccct cggtgtttct gaacaagacg gttgttccctg 240  
gatgttccac acgcctctct ctgcgccagc ctaagaacta taattactcc tcctgcttcc 300  
ttgagagtct ttctcctctc cggtattaac caggattcca acgggcagcg ttttgattga 360  
gaacactggc aattcatcct cctctctcga aaacttccgg cggccga 407

<210> 921  
<211> 466  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-B4

<400> 921

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gagctagcta ggactcatgg ttcccgtaga aggatgagga ccactagcgg tagagcaacc 120  
ataaaagcgtc gacgtgccaa gggacgttgg aacctctgtc ccaagtccaa ccctagcagc 180  
ggcaaacggg cttgaagttt gtttctctct tcaactctatc tgtaatcttg tttcatgtgc 240  
tttttttcca ccagaagata caatgagaaa catggttcgt tgagctcttt tctgcgtttt 300  
aactctcttg catccttgat tcgtttataa atcaatgttc ttggaattca tcacatgtac 360  
tactatacta cttgcttcat tgaatttggt actactccga aaaaaaaaaa aaaaaaaagg 420  
ggcggggcgcc cgactanttg agccccgtcc aaccccgga antaaa 466

<210> 922  
<211> 454  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-03-Q1-B1-C2

<400> 922

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aacgaaacgt aaagatcaca gatttcccag gtcattgctct cagagaaatt ctctgtcttt 180  
gattcaatgc gatataaaag agagatcttt cggagagtct atgacgatca cgaatcgtgg 240  
attgagtttt aagacgaatg tgtttgagca agctcgttct gtgactggag actgttctta 300  
tgatgaaact tcagctaaag cacgttctca tgttgttgca gaagataaga ttggtgtctt 360  
gcttttgaat ttaggtggtc ctgaaactct taacgatgtt caacctttcc ntgtataatc 420  
ctccttgctg attcggatat tataanggct tccc 454

<210> 923  
<211> 453  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-029-Q1-B1-B1  
<400> 923

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ccgatgcatt ttcacggctg agggngccgt cgcaccgccg tactaaacga actgattagt 120  
tctttagatt ccttaagtct cacggaagca cttgcagctt cttcatcgtc tcccgttacc 180  
atgcccattt ccanggggac gatgatcgct tcatcgaatc taaagcagca accaccacca 240  
ccaacgggtct tccgccgttg gcttngatgt tcggagaaca ggagatttcc aaattacnnc 300  
aagagttngn tctccaach aatttgctct ttnaactttc cttcaanntc caagttnnac 360  
cttccaatgg gccaancttn aaggccaanc aaccgttcga anctttcctt tgggngatgn 420  
aattnaaaac aangttgggt ggccgggggt aaa 453

<210> 924  
<211> 434  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-029-Q1-B1-B6  
<400> 924

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gagaaaggag acccgccacg gctgccaggc catgattcgc cttcgactca tccactttga 120

tcgatggaaa gttgatcaag tcaaactcga ccacaaccac tcctttgatc ctcaacgtgc 180  
ccacaattcc aagtctcaca agaaatcctc ctctcagct tctcctgcaa ctaagacaaa 240  
tcccgaacca cctcccatg tccaagtccg gactatcaaa ttgtatcgaa cccttgccct 300  
tgacacacca cccgctcttg gaacttcaact ctctancgg gggaaaccan ccgatttcaa 360  
gccttgatna acttcaatcc ttcaanggcg ccttgggagc tcaaaagggg ggtttaaggg 420  
gcccttgcaa ggat 434

<210> 925  
<211> 420  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-029-Q1-B1-B8

<400> 925

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aatatgtcga tggtcgtgct tgatcgagca ttctatcaag ctaagaaacg aggtgtaaga 120  
atccgcggca ttataatctc gaatccttca aatcccatgg gaagcctact gagcagagag 180  
aatctctatg cgcttttggg ctttggccgt gagaggaaca ttcatattat atcaaacgaa 240  
atctttgctg ggtcagtcca cggagaagaa ggagagtttg ttagcatggc tgaaatagtt 300  
gacacggaag agaatatcga cagggaaaga gttcatatcg tgtatgacct ttcgaaagac 360  
ttgtctttcc ggggggctta gattcgctgc tatctactcg ttcaacgaga gtgttttatc 420

<210> 926  
<211> 438  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-029-Q1-B1-C1

<400> 926

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aagaacttgg gtcaggaat ggcatgtttt ttgtcccgca gcgaccttat acatgtttag 180  
ggacactgag agatcaaatt atataccctc tatctaaaga agaagcagag aaaagggcag 240

caaagttgta caccagtgga gagagctcaa cagaaagctg ggaagcattc cnggattcct 300  
catttgaaaa ccaatcctgg gagaatgttc cggttaagtt taaccccntg gggaaagaan 360  
accgtnaggg tgggnttggg gatgccaaact aaccaaattt ggggaaagac cataattaac 420  
cncccttggg ggaaacca 438

<210> 927  
<211> 425  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-029-Q1-B1-A8  
<400> 927

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ctcatttgag gtccgtcttg ccattccagg aagtcaagat atcaatttcc gaagtctatt 180  
cttattagca agtgatgaca agagatcaga agcttcacct cgtgggttgat tgtttgctga 240  
caacttcttt catgcttttg ttctcggaaa agatccagtg atgagaagag aaagaatttg 300  
aagataaaat tgaatccttt nacctttttc ggggttaaata agttgggttg gttttaataa 360  
tcccgggaga atgtttccng gttgtttaac tccgccggga aaattgtgcc gggcttccng 420  
tcctg 425

<210> 928  
<211> 438  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-029-Q1-B1-C3  
<400> 928

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gctctgcgca aaggacagag ttggattact gtcggaagtg acaaggattc tgagagagca 180  
cgggctatca gtgtcgagag ctggtgtgac aacagtanga gaacaagccg tcaacgtttt 240

ctatgtgaaa gatgcttcaa gggaatccaa ttggatgttg aaanacgatt tgaggcgttt 300  
 acgccggaga agattgggac acanttatga tngatttgac ttnaaagaat aaagtttccg 360  
 agcagnaaaa ttgggaanga aagaaggtcc aagcccggga acaaggagga aggattgggc 420  
 caaaacccaa gttttcnt 438

<210> 929  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-029-Q1-B1-C5  
 <400> 929

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 tactacacta gttgatggga aaggtagccg ccagagtaga cgtaggattg aaaacattat 120  
 ggggtgatttg gccaaatcaa ttgagaaaga gaagaagatt tctgtcaaga tgcttaagga 180  
 tgttggggag ctattaagcc tcaactctcag ccagggtcaa aaccgtcaac agctgtcggg 240  
 tttgacaaaa tttcgtcgca ttgatgtgac accatcacta gatcccctag acggacttta 300  
 tattggcgca catgggctat atacatcaga agttatccat ttaaaacgca aatttggcca 360  
 attggaaagg gtggaaaagg atctaagaaa ncaacaagat atccgaantt taagaataag 420  
 ttgt 424

<210> 930  
 <211> 375  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-029-Q1-B1-C6  
 <400> 930

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 ttctgaatc aacggcgcggt cggtactttc aacaactcgc ctccgctctt cgtttctctc 180  
 accaagacgg tgtcgctcac cgtgatgtga aacctcagaa tctactctta gatgagcaag 240

gtaacctcaa ggtctctgac tttggtttat cagctttacc ggagcatcta caaaacggat 300  
 tgcttcacac ggcgtgtggt actccggctt atacagctcc ggaggttatt cacggagggg 360  
 atacgacgga gcaaa 375

<210> 931  
 <211> 488  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-029-Q1-B1-D1  
 <400> 931

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 tccgaattgt tgtcttancc ggtcgtcgct tcaatgaaaa ggaaggcttg ccagcattcc 180  
 ctatgggaaa tattgaccag acaagaatgt ggaagggtggg tgaacgcgtc aggaagtcca 240  
 gacctgctgg tgacttgggt ccattgtatc ccttcaccgc tggagtttat gtagcactta 300  
 tgatggctca gattgagatc ttgaggaaga aagggtcact cttactcaga aatcatcaac 360  
 gagagtgtga ttgaatccgt gggactctct aaacccantt atgcacgccca angggaattg 420  
 tccctcaatg ggttgacaac tgctcaanca acagcaaaga nttgggggttc caaggaaatt 480  
 gggcncca 488

<210> 932  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 <223> Clone ID: ARABL1-029-Q1-B1-D2  
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 agcgatatct ggggcagctg cagatgcgga agctgccgga ttatggacac agatcaaggc 180  
 ggaagctcgc cgtgatgctg aggcggagcc agctttagct agctatctat attcgacgat 240

tctttctcat tcgtctcttg aacgatctat ctcgtttcat ctaaggaaac aaagctttgt 300  
 tcctcaacgc ntttatccaa cacttttata cgatntgttc cttaaact ttttcctccc 360  
 gatncttctc ctgtaacgc caaccgttgc aaatttaggc gctgctcgtg ttcgtga 417

<210> 933  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 933

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 attttttgta ttttaagatc atctgttaat gtaatggttt tatgtttnnnn nnnnnnnnnn 180  
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<210> 934  
 <211> 351  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 tggttcgtag cgattcgtcc gatccgttac atgctcagag aacagagact cgtcttcgtc 180  
 ctgctcggca ttgccatcgc cacattagga ttcacaatct tctccaaatc atccaaccac 240  
 caaccaattc cttacgacgt ggatccgctt tccggatacg gatgcgatcg gagtcacgt 300  
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<210> 935  
 <211> 479  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
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<400> 935

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 ccgattaaaa ccaaaccgtg ggcaagtcct ttggggttaga ctcttcacaa gctagggtca 180  
 cgtgctctct cactctgac ctcaaagact tcgctggaaa atgctccgac gccgccaaga 240  
 tcgccgggtt tgctctagcc acctctgctc tcgttgtctc gggggccggt gcggagggag 300  
 caccaaaaga ggctaacgta cgacgaagat acagagcaaa gacttacatt ggaggtnaan 360  
 ggttaccggg tacgggaaaa caagtgttca aactatcgat ggggggtcct gaaganaatc 420  
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<210> 936  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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 gaatctgagt aggaagatcg gtgcagggct agtcgctggt ggaatcggag ccgccgttgg 180  
 aaatccagct gacgtggcga tggttaggat gcaagctgac gggagggttac ctttagcgca 240  
 acgtcgtaac tacgccggag taggagacgc aatcaggagc atggttaagg ggagaaggcg 300  
 taacgagcct tgttggcgaa ggctccggcg ttgacgatta accgaaccaa tgattgttga 360  
 cggcgggctc aacctaaccg tcctaacatt aanttcaaag gaanggatan ttgganaatg 420  
 gggttaatga attgatt 437

<210> 937  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-029-Q1-B1-F2

<400> 937

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cgattctect ccctagtcaa accggatttg atatttctcg gagtccggta tgctctgctc 180
cggatccgaa cctaaattac agaccgggta ttgggtattct gagccatcct ggcgacgggtg 240
cgtcagggtcg tttgagcaat gctacagacg cgctctccat tgcggcttcg tatgtgaaat 300
tagctgaatc tgggtgggagc acgtgtgatt ccaactcatct ttaaagaanc ctgaagaaat 360
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<210> 938  
 <211> 531  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-029-Q1-B1-F3

<400> 938

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nnnnnnnnnn nnnnnnnnnn tncngcggag gagcttcttc ttcgtagggn gttcatcggt 180
attaacgtta tcgcccctac gtcagctcca tctccagaaa catgggtgca ggtggaagaa 240
tgccggttcc tacttcttcc aagaaatcgg aaaccgacac cacaaagcgt gtgccgtgcg 300
agaaaccgcc tttctcgggtg ggagatctga agaaagcaat ccccgccgca ttgtttcaaa 360
cgctcaatcc ctgctctttt cccctaactt atcaagttga catcaatata agcctcaagg 420
ctttcnacta aggtcgccaa ccaaatttac ttctctcttc ctccctcaa gcctctctcc 480
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<210> 939  
 <211> 381  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-027-Q1-B1-A6

<400> 939

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aactagcgga gctccgggag atattccgat catttgacca gaacaaggat ggaagtttga 120  
cggagctcga gttaggctca cttctaagat ctctcgggtct aaagccgagt caagaccaac 180  
tcgacacatt gatccagaaa gcagatcgga ataacaacgg actggtcnag ttctccgagt 240  
tcgtcgccct cgtcgagcca natntgggtc aagtgtcctt acacggatga tnagcttaaa 300  
gncatcctta naatgtttga ccgcnatggg aaccggtaca taacgngngn gganttagcc 360  
cattcaatgg naagctagtc a 381

<210> 940  
<211> 363  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-027-Q1-B1-A9

<400> 940

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ttccaacatc ttgcaagatt gtctttgagt tcattcaggt cttgaagaag agcactcttt 180  
taagctgtgt gaaacttgcg ccgttcctgt gaagaactac ttttggcatt gcagatttca 240  
gagagctgtg atttgtgcta tcttaaaaaac ggacaagttc tatgttgtgg cggatgagat 300  
gagggatgct atctgggttg atgaattttc tgaatgctg tctctggcca cggtcagatn 360  
agc 363

<210> 941  
<211> 394  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-027-Q1-B1-B1

<400> 941

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 tacgaaggag ctttggatca aaacaaagga tcaccgtcca cgtgtcatct ttcgttatgt 180  
 ggaatcacag tcacacttgc gctggccttt tgtcggatgt ggcggctctt ttgacaccta 240  
 actttgtctc ccgcgtaaaa cactgaagaa tgtgggccct cactgacgaa agccttatct 300  
 cgttccgggc catgtgaacc ggttattccc gaacgacgtc ggattgggtc agagttgaga 360  
 aaaaaagtta acaacaccta cagttacgaa nata 394

<210> 942  
 <211> 366  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-027-Q1-B1-B12  
 <400> 942

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 tctcaaaagg tattttctgg gtttagcttc ttagagggtc ttcgttctta aaggtctgtt 180  
 tttttttagg ttgtgatact ttgaatgtaa aaaaggggaag attttttagtt tcgatatgta 240  
 tatctctcgg atgggtttga gtcggagttt cccgccgctt tttgggggat tttcgggaaa 300  
 ttccaagggt taagggttga taatgtcttc ctccaacaat cctctgccac ttttaaaatc 360  
 tcctca 366

<210> 943  
 <211> 403  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-B6  
 <400> 943

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 gncgtccttt aatccggtaa tcgtcttaca cnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnncttatg agttttatta 180  
 cgatgatgga tctggttcag gtctaagacc tcttcctgat tctgtatctg agatcttgat 240  
 gggatctgga ttcgaacggt tacttgaaca attgagtcag atcgaagcgt caggtaacgg 300  
 aatcggtaga tctgggaatc caaccggcgt cgaaatcagc gattgaatcc ttacctaaaa 360  
 tcgaaatcca agattgtcat acgaaagcag aagctaaatt gcg 403

<210> 944  
 <211> 394  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-A4  
 <400> 944

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 atgtactact tgcaataagc gggttggcct gactggattc aaatgtcgct gtgggagcct 180  
 cttctgcgga acacaccgct atgcagacgt acatgactgc tccttcaatt accatgctgc 240  
 tgcgcaagag gcgatagcta aggnaaaccc ggttgtgaaa acaaganaaa ncttgacaaa 300  
 aatccgaaaa tcctaantta aactttctcc tgggtttcat caaggtgggc tgggtgttcc 360  
 cttctcctgt ccngtgtcct gggttcaagt natt 394

<210> 945  
 <211> 379  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-027-Q1-B1-C10  
 <400> 945

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 ttagtgaagg ataaaattcg ctaaaaaaag agaatttttt ttgttaaaaa aattataaaa 180  
 gctggctttc tcaaaatttc tccatgtggt cgacgaagaa gacgaagaag acgaagaaga 240  
 aagagaaaagt ctcttaacaa acatgaccgc caccgaagct aagaatcgca aatcaatgt 300

cggagatgga gatgacgttg ttgatatcga aatccctgac actgctcatc aaattagcag 360  
cgattcatgg gttcagggtg 379

<210> 946  
<211> 383  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABL1-027-Q1-B1-C12  
  
<400> 946

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ccaagggcaa cattattaga gtcaaattca atgaccaa atcatcagc ccaacctttt 180  
caaggaggct tcctttttaga gaaagtaatg ggcccattat caacgggtca tttagagctc 240  
aagacccgaa acccaaaaga taaccgatt gtgactttca actatttcca acatcctgac 300  
gacctaaaac gttgtgttcg aggaatccaa aaccatagag agagtccgtg caatctaaaa 360  
gcttttcgaa ggtataaagt acg 383

<210> 947  
<211> 401  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-027-Q1-B1-C2  
  
<400> 947

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acctggattc ggatgctggt gttcagctg cctcggaagc tgtctacgtt gctgcggttg 180  
ctgcatctta agcctgatct gcaacatcct catagctgta gccgtaatcc tcggagtcgc 240  
cgctcttata ctctggntca tcttccgtcc aaacgccgtc aaattctaag tcgccgacgc 300  
taatctgaaa ccgattcagc ttcgattcaa acaanaacct ccaattacag tctcgatttc 360  
aatttcacaa tccgtaacct taatcaacga atcngagtct a 401

<210> 948  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-C3  
  
 <400> 948

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 tccgaccaag atcttctaga tttttcaatt taggtttctt gatctagttc tagtctgaaa 180  
 atcgtcaaat ctgttttcat tcaagcctag atcttgatca atggcgatta cgttgttaac 240  
 taaactatac tttcgggtgt ctgtttttga tatccacaga tggagaaaac cttctattta 300  
 caagtattca accaatacag agaatcagta aacctcacia acctaanaaa ggaacaaaaa 360  
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<210> 949  
 <211> 393  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 949

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 aataggnaca caactaaaga gatgtcgtca accttgagca acgaagagtc aggactcggc 120  
 gattcaaato gttcgacgga agtagatggc ggcgacggag gaaacttcac ggcttacgag 180  
 tctcgattcc agtcgcagcg gtttgactct tctttctcta attttgactc ccaaccggag 240  
 aaagagtcag acttaccatg cggcgattca tctcctcgac ccgaaactca atctccgccg 300  
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 aagaggaagg ttcgctccta ngagatggcg aag 393

<210> 950  
 <211> 404  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-027-Q1-B1-C8

<400> 950

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tgtaaaaagt acgaaaagta tgatatcaat agacagagag acgctaattgt ctccggcgac 180  
gatgctttct cccgccttta ctccgccgtc gaatatgctc tcgaaactgt tcttcagaaa 240  
acagaggatt tgcgtctga gacaaacaaa gcgaaagctg tggcgatgaa cgcagagatt 300  
cgaagaacta aagctcgatt gcttgaaagg aattcaaaaa cttcagaggc tttctctcaa 360  
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<210> 951

<211> 338

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-027-Q1-B1-D11

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ggagagtcaa agaggcaagg aggagaaagc caatggcaca tgccacgttt acgtcggaag 180  
ggcagaatat ggagtcgttt cgactcttga gtggccacaa aatcccagcc gttggactcg 240  
gcacgtggcg atctgggtct caagccgcc acgccgttgt cactgcaatc gtcgaagggtg 300  
gctatangca catagataca gcttggaat atgggtgat 338

<210> 952

<211> 399

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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<400> 952



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 gatggacaca attaggggtt ccaaggaggt tcctggatct tcgaaatcga ccgcacagtc 180  
 gctcacggag tcgacctctc gcacggaaac catcaatggc tcccacgaat tcaagatcag 240  
 cggctactct ttggtcaaag gcatggggat tggcaaatac gttgcctcgg atactttcat 300  
 ggtcggtgga tactcctggg catctacttc taccagatg gaaagatcca naggataatt 360  
 ccgtcaagtg tcnccctcat agcccttgca antgaaagg 399

<210> 953  
 <211> 387  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 953

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 aggtggtggc ggtggatacc gcancggcgg tggaggaggt tactccggtg gaggtggtag 180  
 ctactgcgtg gcggcggtag acgcnaaggg tggaggagga tacanccggc gnnngcngcg 240  
 gttactcctc aagaagttgt ggtggcnnga agctaccggg ggtgggaaga cnttaaggga 300  
 aggangaagg ataccggtgg ttgntaaag gaggaggttt accggnnggn aaccggttgg 360  
 ttgttgggaa aggatgggta aattccn 387

<210> 954  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-027-Q1-B1-D8  
 <400> 954

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ctgaagctaa gctcaatcaa agtttaagcg aatgggaaaa gaaaggtttt caagtaagtg 180  
gctcagtttg tgatgtagcc tctcgtcccg agagagaaga actgatgcaa accgtctcct 240  
cgcagttcga tggcaaactc aacattcttg taagcaatgt gggcgtaatc cgtcaaagc 300  
caacaacaga atataccgaa gacgatttcg ctttcatata tcatcaaacg tggaanctgc 360  
ttancaatth aancagctth caatctctc ctaaaggctc aggctatggg 410

<210> 955  
<211> 388  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-027-Q1-B1-E1

<400> 955

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agaggttgtc ttagaatcaa agcgatttcc actaaatggg aaccgacaaa ggttgttcct 180  
caggcagaca gagttcttgt tcgtcttgaa gatcttcta ttaaatectc aggtggagta 240  
ttgttgcccta aagcagctgt gaagtttgag agatacctaa caggagagat tatactgtt 300  
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atgangtcaa tttggaaccg atgctagc 388

<210> 956  
<211> 380  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-026-Q1-B1-F1

<400> 956

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gtaggctttg ctccaaaatc aggactcatc tcaacgctaa taagccatca cttcactgca 180  
gcacaaaaac caccaccagc acctgcagac gtgaatataa attcggctat atactctggt 240

ggaccaccag taccacgca agctccaaaa cttttgaaat ttgtggatac aagtgagatg 300  
acaagagggc cgcaagaatc acccggttat tggggttgta tcgggtgcaa gattatttgg 360  
tgggagaaaa gnaaaatccc 380

<210> 957  
<211> 400  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-026-Q1-B1-F4

<400> 957

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caangcgttt tcgacaaaaa gaacaacana gaccaacaag agactttgac caaacnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnngatggt tatgacaagc ttagggcttt tttacaacga tgatcagctt 300  
caacaacaat acagtgcaaa anaagtctcg agtttgttcg aagagaaaga agcgaagttt 360  
ggaagaaatc aaacaagctt ttgatgtgtt tgacgaaaac 400

<210> 958  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-026-Q1-B1-F8

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tcaagcaaca acaacaaca ccaatgttcc tgcactaagt gatgatgctt tgactcgtgt 120  
cgccatgtca cttcttctc caaaaactgc gaataaagaa gatggactgt gtgtgatttg 180  
tgtggatgca ccatctgaag cagtgtgtgt gccgtgtgga catgtcgccg gatgcatttc 240  
ttgcttgaaa gagattgaaa acaagaaaat gggatgtcct gtttgtcgn ccaacattga 300  
tcaggtcatt aagctatatc atgtttgaag catatctcct ctatgggtgg aagatattga 360

aactatcncc tatttttttac tttgtcttta anaagataac tacaaanttt ttt 413

<210> 959  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-026-Q1-B1-G1  
 <400> 959

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 tggtcctctg cagcggtaca tggccctgat ggatcttcag gaaaggaacg agagggtgtt 180  
 ctacaagctt ttgattgata acgttgagga gttgcttcca gttgtgtaca caccaacagt 240  
 tggtgaggct tgccagaagt atgggagcat tttcaggaag ccacagggtc tctacatcag 300  
 tttgaacgag aagggcaaga ttcttgaagt tttgaagaac tggccccaga gaggaatcca 360  
 agttattgtt gttactgatg gtgaaccgga ttcctcgggc tgggaaatct tggntgccaa 420  
 ggaatggga 429

<210> 960  
 <211> 535  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 <400> 960

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 ataattgttt cttctccggc gattcttccc gtcaccaacc agcaagcagc cactcaatct 180  
 caacctccaa tcaatttctc cgccttccgt actttctctt cagcctcttc gtcctctctc 240  
 cgcgaaagcc tctctcaacg ccgtccatgg ctagaactcg tagatcggag ctcttcgct 300  
 agacctgact ctctcaccga ttccttctcc cggatccgta agaattctcg ttacttcaaa 360  
 gtcaattact ccgcaattgt ctcgtagtc cttgctttct ccctctcttc gcatccattc 420

tcgcttctcg tctctctctc tctcttaggc tcttgatgt ttctctacct cttccgatnt 480  
tcagatnagc ctttgntct ctttgncgt antttctcaa attgtgagaa attgg 535

<210> 961  
<211> 402  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-026-Q1-B1-E2  
  
<400> 961

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cttaaccgat gttgttatca ccggtgagaa tgggacaatt gatggacaag gagaaccatg 120  
gtgggggaaa ttcaagagag gagaactaaa atacacaaga ctttatttga ttgagattat 180  
gcattctgat ggtatccaaa tctccaatct cactttcttg aattctcctt cttggcatat 240  
tcacccggtc tacagcagca atatatatat ccaaggtttg acgatattag caccggtcac 300  
ggtaccaaac actgacggtg tcaaccaga ttcttgtacc aacacganga ttgaggactg 360  
ctacattgtc tccggcgacg attgtttccn ccgttaaaaa tg 402

<210> 962  
<211> 420  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-026-Q1-B1-G5  
  
<400> 962

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ttctcttcc ttctcagtt tctcgcnaa aactcangtt ttctcttcc tcacgcaacc 120  
aannnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnt tctgtttttc cagctgaagc 240  
atgcgaagta atcaagtga tacgcttggt ctgctgatat ttacctgaa gtcaagctcg 300  
atacaaagcc cgtttcangt cccgtggctt cagaagccgt tgacangaga atacgaagag 360  
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<210> 963  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-026-Q1-B1-G6

<400> 963

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 atgcatcggt aggggagcgt tccgccttag ggggaagcaa ccgcgcgagc ggcggtggac 180  
 gaagcggaag cgagaatgtc ggcttgagta acgcaaacad tggtgagaat ccaatgcccc 240  
 gaaaacccaa gggttcctcc gcaagggttcg tccacggagg gtgattcang gcctaagatc 300  
 aggccnaaag gngtattcna tggacancag gtgantattc ctgtactaac cctttgttgg 360  
 tccccgangg aacggangaa gctangttta acccaaanga ttggttatcg ggttcaaagg 420  
 acnca 425

<210> 964  
 <211> 311  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-026-Q1-B1-G8

<400> 964

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 atcctcgttt gccgaagaa gctaacggag ctccgaagct acacgactct cgtccaacct 180  
 gcagatttga gtctcanatc ttccttgtec gtgaggtgca atggatatcaa acgtgacgac 240  
 gtcgttttgg cacctctggt tgccgacatc gctgatactg tctacgacat tctccatggg 300  
 aggatnngg c 311

<210> 965  
 <211> 419

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 965  
  
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 agaagaaggc cgacatacga gtccgagatg gacgtgcgaa gccaatcgac tacctggcgt 180  
 tcacccttcg atatatcgat gcagagcgcg acgtgttcga tgacgaagag ggcgatctcg 240  
 atatcgaggt accctcgccg gcaaagattg tacagggact cggagtggag gaattgaacg 300  
 aacttgaagg cgacattgct tcgtaccatg tcttgaggatc aaacgctcgt aatcgatcct 360  
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<210> 966  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-026-Q1-B1-H5  
  
 <400> 966  
  
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 tacatcattc gaagatgtgt cgtcatgctt ctttgttggc acgattgatc ctcaatctgt 180  
 cttcagattt catcctcatc aatctttatg tataaaaggc tttcgtgtgt tggagggaga 240  
 agagtccgtg atgtttggga gcttaaccgg cctggcggat cgggtttgat tctacgcgag 300  
 attgtggatg aatcggttaa gaatttgact tgtttttgat taaacctctc caataaccgt 360  
 taacaagatt ccttggttcc tttgggagca aatatttgta aattcaaatg attttt 416

<210> 967  
 <211> 454  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations

<223> Clone ID: ARABL1-026-Q1-B1-H6

<400> 967

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gccggcgga aaaccatgtc gcacttcgga aggtcaggtc caccggatat cagcgacacc 120  
tactcacttc tcgtccttaa catcaccttc cgtacgactg ctgatgatct ctatcctcta 180  
ttcgcaaagt atggaaaggt cgttgatgtg tttattccca gagatcgaag gactgggtgat 240  
tcgctgggtt ttgcgtttgt tcggtataag tataaagacg angctcaca agcagtggaa 300  
aggcttgatg gaagagttgt tgatggcaga gaaataactg ttcagtttgc gaaatatggg 360  
ccaaatgctg aaaaaatttc caaaggaaga gttgtggaac caccgccgaa ntcacgaaga 420  
tctagaagcc gtagtcnaa ggcgagtcg taat 454

<210> 968

<211> 421

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-026-Q1-B1-H8

<400> 968

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aagatatagg gtgtgacttt ctttaatagg tctataaatc tggctatata aataaatgag 120  
atacgcgatc cagtataccc gtttgtgaag taaaaaagaa cctttaactt catgtccgaa 180  
tagactaaaa gtggtaaaa gaaattggaa ctaagtcatc tcgaatcaac ggattcatga 240  
taaaatccct ttatttatta aaaattttta gtgggtaaga ggattaaatg gtgtatatcc 300  
ttttgttaat agcttggagg gattaaaaac atgactattg ctttccaatt ggcagttttt 360  
gcattaatta ttacttcatt aatcttactg attagtgtac ccgttggtat ttgctccncc 420  
t 421

<210> 969

<211> 437

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations



<223> Clone ID: ARABL1-026-Q1-B1-H9

<400> 969

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actcattctt cttcttggtc aagtgggtgc tgattctgaa atctcttctt caataactta 120  
gctcctaagc accgtgccac agcctccgcc gtagttacac atcctccgaa tgggttccttc 180  
cttagcaciaa gctctgaatc gtagatgggt cctccactca ctgatgcgtc tatttccgta 240  
tccaaacaca ctctaaccgc tctgcttct cttaacacca cctcgctagc tttgaccatc 300  
tccttcgctg gtttccacgt cgcgtcgaat acgattagtc tcagcggcgg gggatttgag 360  
atccacgatg gtttaagaag ttttaaggant tgaattcnga tatantgacg gcgggaaaag 420  
aangagaaga aaggaaa 437

<210> 970

<211> 404

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-027-Q1-B1-A1

<400> 970

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ccagcagcag caggaatcat gtatgcaact tcttctacct ccttctttac attaaatatg 120  
cttcaacatt ttgttataaa acaaacaaca agaacaacat gaacttggtg gtttatcgaa 180  
ttctcagttt tgttttgcgc ttaacaacgg tttgttgaca gtttttcgtg gagcgagaaa 240  
cgtcagggtg ctgcttttct ccctggcacc caaatgggtat tctttatact gaatgtggtt 300  
ttggcaattg gagttgtatt gacattcaaa ccatttctag ctgaaacaca acagtagaaa 360  
atgatgaaga ttttgatggn antcaaatta cataatcaga atgt 404

<210> 971

<211> 366

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-027-Q1-B1-A12

<400> 971

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gaactctact ctgttccttc tctcaatatt tcaaattgtg tcaccgtcac tcttactgcc 120

aagaactata ttctctggaa atctcagttc gaatcttttc ttgatgggtca agggcttctg 180

ggttttgtca caggctcgat tcctgcacca agccaaacca gcgttggttc agacattgat 240

gggtcaacat cggcttcacc caatcctgag tactacacct gggttcaaga cagattgagt 300

tgtcaaatec tggctccttg ggtcttcctt aaaagatant cccagtgttg tgggtcaactg 360

caacac 366

<210> 972

<211> 397

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-026-Q1-B1-A2

<400> 972

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aagttactgg gttatctcca tctgttactc ataattgatct tatcgatttc ttctctttct 120

ctggtactat ccaagatatt gatattgtca ggtcgggtga gcaagcttgt actgcttatg 180

tgatgtttta ggattcttat tctcaagaaa ctgctgtttt actcactggc gcaacgatat 240

tggatcagcg tgtttgtata actcgttggg gacaacatca cgaagagttc gatttctgga 300

atgcgacttc gcgaggtttt gaagatgaat cggactcaca acattatgct caacgaagcg 360

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<210> 973

<211> 387

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-026-Q1-B1-A5

<400> 973

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gtctcatgtt ctgacattct cgtcttgtcc gcaagagaag gcatcgaagc agtatgagga 120

ccttatattc ctttgaagac aggaaggaga gatggactta aaancangac ggatatgctc 180  
gagtcanatc ttcccgacca caacgagagt atctccgctg ttcttgaaaa gttcaaattc 240  
atcgggtatcg acactcccgg nctccgctgc cctcctangg tcacacancg tgggaagaan 300  
tcaactgtgtc aaactgggtc atcnnttggt cccctgaggt ggacccctcn ntaaanccct 360  
gacaagttcc tcacatgcta ggcaaag 387

<210> 974  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-026-Q1-B1-A7

<400> 974

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ttctccgaaa gctacctcca aagagagtat cagctcaata ccatccgac cagtagaaac 120  
ctttgtcact gaaccatctc acacggtgag tatgatgctg ttttaagagaa gagtaaagat 180  
taaaaaaaaa attggggcaa aaaatgaaag gtgaagaaga aatcgggtgtg gaatctgcgt 240  
gagtttttgg aatgcacgtt catataaatg attttacagc ttttagttgt tgtagccgc 300  
cgtgactttt ggtttggtaa tttatgtccg ttaaaattat aaattgctct tctgctactt 360  
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<210> 975  
<211> 429  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-026-Q1-B1-B5

<400> 975

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caaaatcatt ctaccaata agaaacctga gaaatgggtc accggagttg ctcccggaga 180  
gtacggtggt cctccgacta ccaccaagct ccgaaagtac tggggaggtg aaaaagaaga 240

tcccattact tccacagact taatctggaa cagagatddd atggatcaaa tgaagaaatt 300  
 gtttgatgat cctaattgatt cttctctcga cccatctcct tcaaaggaaa agtcttctgg 360  
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 gagcttgca 429

<210> 976  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-026-Q1-B1-B6  
 <400> 976

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 agttgagatg tcagttaaag caaggagaat ttctggtaga ttagagactg tagtaactnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnngcca 360  
 aagcctdtttt acaaggaaact gtcaacnttc naaaatcccc ctccgaaaaa ncaaaccggt 420  
 tgtgg 425

<210> 977  
 <211> 462  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 977

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 gctcatgcag ctagtgtca aggaatdtct gtgggtggagc aagtcacagg tagagatcat 180  
 gtgcttaatc atcttagcat cccagctgct tgttttactc atcctgaaat aagtatgggtg 240

ggattgacag agcctcaagc gagagagaaa gctgagaaag agggattcaa agtaagtatc 300  
 gccaaagacaa gtttcaaggc aaacacaaaag gccctaaccg aaaatgaang agaaggactc 360  
 cctaanatga tatacagacc tgacaatggc gaaatccctg ggagttcaaa naattggatt 420  
 gcatgcngct gatnttaacc atgaancatc aaaccgaatt gg 462

<210> 978  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 978

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 aaagatagat agatgctctc atctattctt gaagatactt tctactgttt tgatctcaaa 180  
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 ttctgcattg ctttctccag attgagaggg tgacagaacc gagagaatct gtgagcggaa 300  
 gttagacggc aacaacgatg tcaggattgg tttggaaaag atgttgaatg aatggctcan 360  
 atttggttga antgaataaa tgtttaataa tgtct 395

<210> 979  
 <211> 431  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-026-Q1-B1-C3  
 <400> 979

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 aagagagagt tgtcaaatgt ctggaagctg caatccatag acgagtcagc gaggggttga 180  
 gtttgagact ctgcgcaaag gacagagttg gattactgtc ggaagtgaca aggattctga 240  
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acgttttcta tgtgaaagat gcttcaggga atccagtgga tgtgaagacg attgaggcgt 360  
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 aaatgggaaa g 431

<210> 980  
 <211> 505  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-026-Q1-B1-C9  
 <400> 980

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 caatcaacct ccaccggttc ttcaaccgcc cggcccggtc tggccgctcc tcgnggttcc 180  
 gccgccgcta ctgccggcat gcgtcgccgc aggctcgggtg gcggtggtgg cgtatcctca 240  
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<210> 981  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 981

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 taaataataa ttacacagtg atgtttaaga agggtgcttt tgaattggac tgcactgttt 180  
 gtccaattgc aattaaatac aacaagattt ttgttgacgc cttctggaat agcagaaaac 240

aatcatttac tatgcaacttg ctgcaactca tgacatcatg ggctgttgta tgtgaagtgt 300  
 ggtacttgga accacaaacc ataaggcccg gtgaaacagg aattgaattt gcaaanaagg 360  
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<210> 982  
 <211> 449  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 982

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 ggaagtcttc cttggcaagg cttcgtgctg ggtacaaaaa aacagaagta tgacaagatc 180  
 agcgaaaaga aaaggcttac acctgtagag gttctctgta aatcctttcc acctgagttc 240  
 acatcatact tctcttatgt acgatcattg cggtttgaag acaaaccaga ttatccatac 300  
 ctaaagaggc ttttcaggga tctctttatt cgagaagggt atcagtttga ctatgtattt 360  
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<210> 983  
 <211> 427  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-026-Q1-B1-D8  
 <400> 983

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 tgaatccaaa ctcaagctac gagattagct caaagtctca tcattcaaga tcagacacaa 180  
 acgtctacga gggcagaaga ggaaagggaa aagttgaagt gacaatagca ggaggacgaa 240  
 ttgtgtggga aaacgaggaa cttaaagttg ttccaagaag tggcaagtat atagagatgc 300

ctccttttcag ttaccttttc gatggtattg agaaatcaga tgctaattat ctatcttctc 360  
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 atatcgt 427

<210> 984  
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 <223> unsure at all n locations  
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 ttttcagtac ctcaaagcaa gaactgtaag aggtggctcc gtgtctccat atacgcaatc 180  
 tttgtcatct tctgccaacc acttgctaca gttctgggta gactgtacta tgaaaatgga 240  
 gggaaaagca catatgtggt aacacttctt caactcattg gcttcctgt actgattctc 300  
 ttccgcttct tttctcgaat caggcaaccc aaatcaacag atacaaattt cagtcagtcc 360  
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<210> 985  
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 <212> DNA  
 <213> Arabidopsis thaliana  
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 cttctcccat ctctccaat ttcatcgta gtgaagtctc ccgaaaccga cgatgcgacg 180  
 ccgtttcttc cagcaccacc gatgtgactg aattagccga aattgattgg gacaagattg 240  
 attttgggct taaaccaacg gattacatgt acgcatgaa atgtagccgt gatggtgaat 300



tctctcaagg tcaattgcaa ccttttggtgta acattgacat taaccagca nctgggtgttc 360  
tcaactatgg acaaggnttg ttgaaagng naaaaactta aagaaaacaa gatgggaaaa 420  
tccaaacntt cgttctg 437

<210> 986  
<211> 430  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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tgaaacaaat ttacaaaagg acttacctgg attcttggct gataaaggca aatttacagc 180  
cacccttcaa gctgctggta atttctcaga gtgtcgatct gctgcatttg ccatgttgca 240  
ggaagaaaaa gggaaatgta cttataagcg ttgttctatt ggatcaatat tcacacctaa 300  
tcttcaagga agtttttttg ctacagagaa tttcttcac acatccaagt tctttgggtt 360  
gggagaaaaa gagggtgt ctgaaatgat tttggccgga aagagatctg tggagaanaa 420  
tggtcaaaat 430

<210> 987  
<211> 440  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-025-Q1-B1-F5  
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tggtgttgtt cacatctttg catctttcaa tgacactttc attcatgtga ctgatctctc 180  
cggtagagaa actctcgtcc gcatcaccgg tggcatgaag gtgaaggntg accgtgatga 240  
agtcctctcc ttaagctgct atgcttgcaa ctcaagatgt tgctcaaaga tgcaanggag 300

cttgggatca atggcatggc acgttaaagc tccgtgccta ctgggaggaa acaanaacca 360  
angactccca aggttcctgg tggetcaant ccngetccta agaaccctt gctccgttcc 420  
tggcataaaa gaattgggnc 440

<210> 988  
<211> 370  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 988

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cgtcgttaaa ggaacgtttg gttacttgga tcccgagtac tatcgccgtc aaatcttgac 180  
cgaaaaatcc gacgtgtact cttttggagt tggtctgttg gaggttttgt gctgtanacc 240  
cgatcagaat gcaaaagtgt tccaccggaa caagcagatt tgattcgatg ggtgaagtca 300  
aatttcaata aaagaaccgt tgatcagatn attgactcaa gatttaaccg ctgaatatca 360  
cttcgacctc 370

<210> 989  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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cctcaatctt cccactcat tttaactggt acacttctc tcttgctca ctcaactctt 180  
ctctctctc cantatccac acatacgaca ccgttttcca tggcttctcc gctagactca 240  
cttcacaaga cgctagtcaa ctcttagacc atcctcatgt catctctgtt atcccgaac 300  
aagtcgctca cttgcacacc actcgttccc ctgagtttct tggctcttagg tccaccgaca 360

aagcgggtct actcgaagag tctgatttcg ggtcggatct aattatcnga agttatcga 419

<210> 990  
<211> 439  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 990

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ggacaagtgg nggctgcctt gccctaaggt tccgcctaac ggtttgtcat gaagaggcca 180  
ggaagaaact gcagcagtgt cgggactttg ctaaccagat tctcaaggct gcattggcaa 240  
ttaacagtgg cgtgcttgcc gaaatggnga ttcccgaccc ttacttgag actttgcca 300  
agnagcggga agggaatgtc ttggganaaa tnatcnacca ntacttaact gcaaacaag 360  
ttctcctccc gaaatncgcc ttgnacngtc ctgatcncgc anncggaata atcangactc 420  
cttaaaatcg ccaaacggg 439

<210> 991  
<211> 473  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-025-Q1-B1-G11  
  
<400> 991

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aaatcgacgc cgtttcagcc gtacagttag gtgttcggaa tccagagatt caggggaatgc 180  
gaactcatcc acggacgggtg ggcgatgctc gctactctcg gcgctctctc cgtcgaatgg 240  
cttaccggcg ttacatggca agacgctggc aagggtggagc ttgtagatgg atcgtcctac 300  
ttggggcagc cattaccttt ctgatctcg acattgatat ggatcgaggt gttagtgate 360  
ggctacatcg agttccagcg caacgccgag cttgattcgg agaagcgttt ataccccgga 420

ggcaagttct ttgacccgct aggttttagcg gctgacccgg agaagactgc tca 473

<210> 992  
<211> 420  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-025-Q1-B1-G12  
  
<400> 992

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agaatgctc cagaagctgt tgatttggtc tcaaggttc ttcaatactc tcccaatctc 180  
cgttggtctg ctcttgattc attgggtccac ccattctttg acgagctaag agatccgaat 240  
gcgcgattac ccaacggacg tttccttcca ccgctcttta actttaagcc tcatgaactt 300  
aaagggtgtgc ctgtgggat ggtggcgaag ttagttccag aacatgcgag gaagcaatgt 360  
ccgtgggtca gtttgtgatt tgttctcacc tgcaaacacg aaaactaaga gcanagcagt 420

<210> 993  
<211> 439  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 993

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agtgtatcct tcacaaaacc aaaacacact ctccattttc ttcagacang tctttctcct 120  
ttcttctctc ttctctgtct catcacaac cagaaatggg aggagtgtcc ttctctcca 180  
ctgttccttc cttcaccaac acaaccaatc atcaacatct cactacactc tcttcttctt 240  
ctcatcgctc tgctgttata cgatgttcca agattgaacc tcaagtttcc ggtgaaagtt 300  
tagctttcca ccgccgtgat gttctcaaac tcgccggcac tgcagtcgga atgggaatta 360  
atangnaacg ggttcattaa caatgtgggt gatgcaaaan gctgcgactt gaacaacgtt 420  
gacaacgatt cgagnttca 439

<210> 994  
 <211> 447  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 994

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 gttcctgggtg gcaatatgcg agactctttc ctcgttgatg gtgtagcttt caaaaaaaca 120  
 ttctcgtatg ctgggtttga gcaacagcca aagaaatttc ttaaccccaa aattctcttg 180  
 cttaacatcg aattggagtt gaaatctgag aaggaaaacg ctgaaattag gctgtcagat 240  
 ccatcacagt accagtcaat agttgatgca gaatggaata tcatttatga caaactaaga 300  
 caaatgtgtt gagagtggag caaaagtgtt tctttctcga ttggctattg ggtgatctaa 360  
 ctactcanta ntttgcccga tcgtgatatt ttctgtgcc tgggccgtgt tgctgaggaa 420  
 gattcttaan cgttgttggc tggctgc 447

<210> 995  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-025-Q1-B1-G6  
  
 <400> 995

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 aacaaggaga cagctggaga gagagctgat gctggaagac ataatgcatc ttgaggactt 120  
 accctctac gctcttctca atcaatagcc cttatgatga tattaaatag taagaagagt 180  
 ttctaacctc aggataacac aaggttgctc tactctctct ctctcttcac ttttcatctt 240  
 caacgctttc ggttctacct cttcgttgac cttttcttgt gtttggtggt tctaagaaac 300  
 aacttcaaca ccgagttggt acttggtata ttaaaacaag aaaaagagtg tgagananac 360  
 gggggagaag gttgggataa atcccaattt tggttgcaag gatttgnaac ctaaattggaa 420

<210> 996  
 <211> 386  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 996

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 ctattggctt taacgctcaa cattgtcttt gcaccactta tgggtttccc tgctgatgag 180  
 aaagttatta aggagagtga agagaagctt gcagaagtgc ttgatgtcta tgaagctcag 240  
 ctttctaaga acgaatactt ggctgggtgat tttgtgagtc tagctgattt ggctcanctt 300  
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 agcatgttag cgcttggtgg gaataa 386

<210> 997  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 997

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 tcaccatgcg caaagcctcc aagcccaccg gtcacccggn aagcccatgg gtacgggttc 180  
 cgaaccgaan caaagttact tnggtccaat tctccgggtg naggcctccga anctacctca 240  
 cnggaaattt ccccggggat nangggngga aaantgccgg tctatccgcn gatcccaana 300  
 ccttcgcaag gaaccgtgaa gcnaaaattt atccaaanca natgggcaan gcccggaacc 360  
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 tt 422

<210> 998  
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<212> DNA  
 <213> Arabidopsis thaliana  
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<400> 998

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 acttctccga gaatcaagct cagtgatgga agatatcttg cttatagaga atctgggggt 180  
 gatagataca atgcnaacta caagatcatt gtcgttcatt gcttcaacag ctccaaagac 240  
 actgaatttc ccatccctaa ggatgtaatt gaggagcttg ggatatactt tgtgttctac 300  
 gatagagcag gatatggaga aagtgatcca caccatcac gcactgttaa gagtgaagca 360  
 tacgacattc aagaactcgc cngataaact caagatnggn caaaagttca agttcctngg 420  
 aaanactaa gtgcctactc cggt 444

<210> 999  
 <211> 446  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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<400> 999

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 aatagaagtt gaagaagatg acgaacaaat tggtgatttg gagaggaaaa cattccgtca 180  
 tggaaagggg cagatacta gtgtggacag tagtacaatc accaacacca agtcgtcgt 240  
 cgtcttctaa cttttccggt gatggtggaa cggaagagac ccccgatttc cacagcaacg 300  
 gcgatggaga acataccgga tttagtaaaa tttggangtc ccnganctag aaaactgaaa 360  
 atcgtatttc accaagnagc atgacnacgg ggaanaaatt gcacgtcct cctcgcacgg 420  
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<210> 1000  
 <211> 424

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 gttttggaga tttgttctca tggcctgata ttggtgggat tggttcgagt ggagtcgtga 240  
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<210> 1001  
 <211> 522  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 tggatcatca ttaccattct caaccgcagg tgaaactctt tggatatgga gttgaagctt 180  
 atgtgctctg tatccaagct caagttgata tgn cattagg aagatttgag aatgcggttg 240  
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 ttttgtactg caacagagca ncgtgttggt ataagctcgg tttgtgggaa aaatctgttg 480  
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<210> 1002  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 ctttcatcaa tctcgtcttc tttaatctta ggtgagaatt catcagctca aaaacgcagc 180  
 acccgatcgt tttacgactc aaatcagaga agctgattct tttccaatca ttccaatttc 240  
 catttcttcc ttgggaggtt ttacaccaa ttagccgtcg aaaggggtgc ttctttgatc 300  
 taatttcgat ggcgggatta gagaaaaacg ctgatttctc agggaagacg acgaaatcgg 360  
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 gattccnggg cccc 434

<210> 1003  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
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 <400> 1003  
  
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 aatcttactt ggattttcag cattgactct ggtttcactt accttgtag acttcatttc 180  
 tgtgaggttt cttcgaatat cactaagatc aaccaacggg tgtttacaat ctacctcaac 240  
 aatcaaactg ctgagcctga anctgatgtg attgcttgga ctanttcaaa cgggggttccg 300  
 tttcacaagg attacgtggt gaatcctcca nagggaaatg gacancaaga tttgtggctt 360  
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 gtg 423

<210> 1004  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-025-Q1-B1-B10  
  
 <400> 1004  
  
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 tcactaatca ctctccgttc aaacaacatc aaagaagaca catacttcgt ctcagaactc 180  
 aaacccacgg agcaaaaatc acttcangaa ctcaaagaaa agctctcagc ntcactctcc 240  
 aaagcttctt caatgtgggg agtctcactc ctcggtggag acgacaaagc tgacgtaatc 300  
 ctctcaagt tcctcagagc aagagatttc aaagtagcag actctttgag aatgcttgag 360  
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<210> 1005  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-024-Q1-B1-H4  
  
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 aagtgtcgca tatcaagagg gacctctctc taatggagat gatgttgtca ttgtcgcggc 180  
 acataggact ccactatgca agtccaaacg tggcaatttc aaggatacat atccccgatga 240  
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 taagtgacat tgttgtgggt actgttttgg nacctggatt tcaaanagcc aattaatgca 360  
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<210> 1006  
 <211> 356  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-025-Q1-B1-B11

<400> 1006

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aagaatgttt tgtgtagttt acattcaaag aacaatgata ttaccaagac aaataggaat 180  
ctgaagttta gagcttggtc tgtttctgga gggataaca acaatacatc tgtggacaat 240  
gtaccttttc ctccgtgatt acgtcgagct cattaatcan gccaaagan cagtggaaat 300  
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<210> 1007  
<211> 420  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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gaggaaaccc tttcttgggt caaagtatgt catngcagaa ggattactcg atggcaacag 120  
cggatgtggt tgatgcggaa gtgagagagc tcgttgagaa ngcgtacgtg agagcgaaag 180  
anatcataac aacacaaatt gatatcctac acaagcttgc acagctcctt attgagaaag 240  
aaactgtgga tggagaagag ttcatgagtc ttttcattga cggacaagcc gagttatatg 300  
tttcttaaaa tcaactaatt tggcttgnat aataccaatt agcntcgatn taaacatact 360  
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<210> 1008  
<211> 509  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-025-Q1-B1-C10

<400> 1008

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 gttcatatat gaattggaat tatttgtttt cttattaggc ctatcctgaa gccaaaggaa 180  
 atgagatcgg aattcctcgg ggaattccaa ttccacattt tcaagaaata aggaggcaaa 240  
 aatgttcata tatgaattgg aattatttgt tttcttatta ggcctatcct gaagccaaag 300  
 gaaatgagat cggaattcct cggggaattc caattccaca ttttcaagaa ataaggaggc 360  
 aaaaatgttc atatatgaat tggaattatt tgttttctta ttaggcctat cctgaagcca 420  
 aaggaaatga gatnggaatt cctccggggg taccganctc gaattcccta aaanngagtc 480  
 gtantaaatt cgtaaactg tcanaacct 509

<210> 1009  
 <211> 155  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 1009

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 caccttttgt nnnnnnnnnn nnnnnnnnnn nnnnn 155

<210> 1010  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 1010

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 tagaggaggt tggttggctt ttcactggcg gtgttggtc cctcagcaac gtcggccagt 180  
 tttctctccg gcaacgatgg ctccgtagca ccgtttggct ggctcctctt gtatgcccga 240

tgttttcggc ttctatgcg atggngtccg cttttgtctc tggncattcc accgtcancg 300  
 ttccgggtgg ttttgggcna nttatgtacc ggggtgttana tccngttaat ntgtttccgg 360  
 tttaactttt aataanttcc aatggaaang tgttgggtga a 401

<210> 1011  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 gtcctttgat actgttatta ccagtacctt ggctataaat tcctctgctc cctttgtttt 180  
 tgggtgtagc aatttacaat ctggagattt acagaggcct agaagagcag tagatggcat 240  
 ctttgggtta ggacaagga gtttatcaag taatttctca gcttgctgtg caaggactcg 300  
 cgccacgaag tattctcgca ttgtctgaag ggagataaaa gcggtggagg tataatggtt 360  
 ctaggtcaaa tcaagaaggc agataccgtc tatactctc ntgttccatc acagcacatt 420  
 ataatgtgaa cctg 434

<210> 1012  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-025-Q1-B1-D12  
 <400> 1012

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 atcagctgcc aaggagctaa gacttctgac caggaaaggc actgagttcc gagctctttt 180  
 tggcgaatct ccggatgaga tcaccagggt ggtgaatccc ttgttacacg ggtcaaacc 240  
 agatgagaag cttcaagaag atgtgggttac aacattgttg aacatatcaa tacatgatga 300

cagcaacaag aagctcgtct gcgaaaatcc taatgtgatt cctctcctta tcgatgcatt 360  
gaggcgtgga acagtcgcca cgagaagcaa tgcancgtga gcgatnttca tccgtcagct 420  
ctcgaatcaa 430

<210> 1013  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-025-Q1-B1-D3  
<400> 1013

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tgtattagca aaaggaatgc taattcgtgg tcaacccaaa gggatgatca tgtgttcaaa 180  
tgggtcgaag atgctgtggt tgaagaagta gaagatgctt tgccaagatt agccatcatt 240  
gcaaatgaga taagcaaagc taaatctgag gcaaatgagt taaaggctat gattcaagaa 300  
atgaagagaa gaagcaatgg gtcaacgaca tgaagacccc gaaagaaact ggggtgtggct 360  
ttgaaaatgt gtattgtggt ggatgtttgg tatcaccatt gtgaatttcc tcntg 415

<210> 1014  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-025-Q1-B1-E10  
<400> 1014

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ctgattcctc gaatatctat tcggcttttg gagaggctga gtcaaagtct gtggagacac 180  
tctcaccgtt tcagcagaaa gatgggtcaaa agggactctt tgttgatcgt ggtgttggtc 240  
cccctaggct agtgaagtct cttagtgcaa ggctcttttt tgattgatac caagcaaadc 300  
aagaattcaa tgccagccgc tgcaggagct gttgccgcag caacggtagc tgatcaaadc 360

cttggaccga aagaagatag acatctagca antgtcctgg ttggcttgcc tgctcn 416

<210> 1015  
<211> 437  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-025-Q1-B1-E11  
  
<400> 1015

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ctcatatcat gatgatacca taccacttc aaggtcacgt tatccctttt gtccacttag 120  
ccatcaaact tgcttctcat ggctnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnng ccggtgacat cttctccgcc gctcgcagct 240  
ccggccagca cgacatacgt tacaccaccg tgagcgacgg cttcccttta gactttgacc 300  
ggtcactgaa ccatgaccag tttttcgaag gcattctcca cgtcttctct gccacgtgg 360  
atgatctcat cgccaaactc tcccgccgtg atgatectcc ccgtgacttg cttgatcgcc 420  
gacacgtttt aagtttg 437

<210> 1016  
<211> 443  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-025-Q1-B1-F2  
  
<400> 1016

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caccacatga agatgatgat gcacatgacc ttcttttggg gcaagaacac ggaggttctc 180  
ttctccggtt ggcccgaac aagctccggc atgtatgctc tttgtcttat, ctttgtcttc 240  
tttctcgccg tctcaccga atggcttget cattctctc tctcctgtgg ctccaccgga 300  
gattcggcta atcgtgccgc cgggttaatc caaacgccg ttgtataccc tccgtatccg 360  
gctcgcttat ctagtcatgc tcgccgtcat gtcgtttaac gccggggtgt ttctcgtcgn 420

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443

<210> 1017  
<211> 405  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-025-Q1-B1-F3  
  
<400> 1017

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gtgantcgaa aggtcagtaa tcagtataaa gctaccattg gagctgattt cttgaccaa 120  
gaggtccaaa ttgatgacag aatcttcact ttgcagattt gggatactgc agggcaagag 180  
aggttccaaa gtttgggtgt tgctttctac cgaggagcgg actggttgtt tcttgtgaat 240  
gatgtcaatg ttatgaaatc ctttggaaat ctttaacaact ggaggggaag agttcctgat 300  
ccaggetaag tccttcaaat tcctgaaaac ttcccccttcn gntgtcttgg gggaacaaga 360  
cagatnttga cgggtggaaaa aatcaattgg ttactgagaa gaaaa 405

<210> 1018  
<211> 400  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-024-Q1-B1-D8  
  
<400> 1018

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cgacggcttc gccgattgag atgctctgtt aaggattacg attggggcaa aattggatcg 180  
gattcactcg ttacagggt ttatgcggcg aattcagatt acgagatcga tcctacacga 240  
ccttacgccg agctatggat ggggactcac gagtctggtc cgagttactt ggaggatgct 300  
gatggatcca atggcgtgac ccttaaatec tggatnaccg aaaaccctaa atctctggaa 360  
ataaggtttt gggaanaaat ggggttgcca ttccccctt 400

<210> 1019



<211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-024-Q1-B1-D9

<400> 1019

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cgtcatcgtg ggcattccgg tggccggagg tgaatctttc atccctgagc tctggttgga 180
acatgagatt gttgtccttg tcgggtgatc tctccatagt tgatgatctt ttgtggagtt 240
ttgtctcaat cattgaatct ttagctatca ctgctacggg ctggttgctt ttcttgtttt 300
gtggttgtag cctctaattc ccttttttca ttatttaatt ttccgaattt taatgccaac 360
tgaaatgtgt gtaaaagaaa aataatcaat taaattcaag acttttttan caa 413
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<210> 1020  
 <211> 525  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-024-Q1-B1-E1

<400> 1020

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ggaattcggc tcgaggttcg gatcgcggcg acgtgggtgg ttcgccgccc gcgacgtcgc 120
gagaagtcca ctaaacctta tcatttagag aatggagaag acaaaatgca attcaacttg 180
aggagaagga gaagagagaa aaggaattgt tgaagcaaatt tattgaggaa gctgatcaat 240
acaaagaaga gtttcataag aagattgaag taacttgtga aaacaacaaa gcagctaaca 300
gagagaagga aaagctgtat ctggagaacc aagagaagtt ctacgcggaa tccagcaaag 360
aattactgga aggcaatagc agagctagtt cctaaagaag ttccaacaat agagaaaagg 420
agaagaaaaa aagagcaaca agattctaaa gaagccaaca atctcctgtg aatcaaggnc 480
caaaagcccc ggtaagccaa accgattcta acaangaatt gagac 525
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<210> 1021

<211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-024-Q1-B1-E11  
  
 <400> 1021

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 tcttcacttt tactctcaaa gctttcatct ttcattcaac tacttaagct ccaagtatgg 120  
 caggatccgc accggaagga acacaatttg atacgcgtca gtttgaccag aggctgaatg 180  
 aagttctcga tggacaggat gagttcttca cctcatatga tgaggtccat gagagctttg 240  
 atgccatggg tttgcaagag aatcttctta ggggtatcta tgcttacggg ttcgaaaagc 300  
 cttctgctat tcaagcaaag aggaattgta cccttttgca anggtcctga tgtgattcaa 360  
 caagcacagt ctgggtactg gaaaaaccgc cactttctgc tcctggtgtc ntgcaa 416

<210> 1022  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-024-Q1-B1-D7  
  
 <400> 1022

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 cagattgtca tacgaaagca gaagctaatt gcgccgtgtg tacggagggtt ttcgaagccg 180  
 gaatcgaagg tcgtgagatg ccgtgtaaac acatatttca cggtgattgt attgttccat 240  
 ggctttcgat tcggaattcg tgtcctgtgt gtagatttga gttaccttca gatncaatcc 300  
 aacggagtaa tgaagaanaa catgccgttg ggatgaccaa tttggagaat acctggtggg 360  
 tggtttcccc tgttgggaag tttaaaccgc ggaagttaag aagaaagggtg anaaggatat 420  
 tgccggtgg 429

<210> 1023  
 <211> 441  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-024-Q1-B1-E6

<400> 1023

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tacattgtga cgatgacaag tactggagct attcttttga ttgggtttca attatcaggt 120

ggagatagtt cgatgaactc attggtttgg tatagttggc ttggtggaat tatcattgga 180

accatgactg gtgctaacat ggttttggaa gatcattatc gagccgggtcc acggaatgtt 240

gttataaccg gaagcactag gggactaggg aaagctcttg ctagagagtt tcttctctct 300

ggagacagag tcattgtcac atctcgagc tccgaatctg ttgatatgac tggccaanga 360

gctagaagca aaatctcaaa gagattatga attaacgcta gccaanctag cctanaaagg 420

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<210> 1024

<211> 531

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-024-Q1-B1-F1

<400> 1024

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attncgggtcc aaggntatat naanaagggt tgtgaaaaca anggatccaa aacctcccc 120

aaggacctcc gccctaataca agagaaggga ggttcaaaaa gaaaaagagg aaaaaatgga 180

ctatatgtat gggaccaagg gagacaccat ctgtttgtac caaggaccag tgaacatacc 240

ggaaccggta atccgggcga tgaaccggaa caacgaggat taccgggtcac caagccattc 300

cggcgcttac gaaaacattg ttggaggatg ttaagaagat attcaagacc acatcagggg 360

caccttttct gtttcccacg accgggactg gtgcttggga aaatgccttt gaccaaacac 420

gttatctcct ggagacanga ttgtttccct ttcttgattg gacaanttta cntgcccct 480

gggattgacc aagcaanaag aaggcttaaa ttcaatgttt gatgttgggt t 531

<210> 1025

<211> 385  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-024-Q1-B1-F10

<400> 1025

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taatgaactc agcatacagc attcctagtt ctttgtacat tttttatctt ataaaccata  180
gtcttttttg tggtaacaca tgtatagagt aaggaaattg tctagggcga cggagaaatt  240
gagcaagaca atgttgaatg gtgtgggagt ggtgaagtgg ctcggtgatg ggtccagttg  300
taaagtcgaa gccagggaaa gcttttttct caatggttcc aggggaagtt cnantggctt  360
cacttgaagc tcttaataaa ntact                                           385

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<210> 1026  
 <211> 456  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-024-Q1-B1-F3

<400> 1026

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cgaaaagcac atcaaagtag gaaaagtttc ggatttaggt ggtaagctcc atgatggcag  180
agactatata tccattagcg agcttgagcg ccttaactgc ccttggctta gacactcctg  240
cttgggtcat cacaagctcg atgtcctttg gctctaactc ctctcgtct acctcttcat  300
catcatcatc ttgaacagca agctgcagtt gcaagcaact gatgtttctc cctgtgaaat  360
cacgttgctt gaaggttggg aacccttgaa ctggccctgc gggnttgact cctgcaactg  420
gcaaaactcna aatcctccaa accttgggcc tcaacn                               456

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<210> 1027  
 <211> 428  
 <212> DNA



<223> unsure at all n locations  
 <223> Clone ID: ARABL1-024-Q1-B1-F9

<400> 1029

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 ggtatcgggt gacagtcagt cttctcggaa aaataaaaaat gtagatcaaa gctgctcaac 180  
 ctctaaacag caatccaaag attttctgct cgcaggcagc aatatcagtg agagccagct 240  
 agatgagcaa agaagaaaga ataacgaaga ggtttcacac aataacagat nagctgagga 300  
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 cngtgt 366

<210> 1030  
 <211> 427  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 1030

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 nnantctctc aangntcccc aaaaaaaccc tagttctgaa tggaatcggc ggattccgga 120  
 cgatccgacg cggtaaaagg agacgacccg ggtccatctt tcgtctcttc accaccagct 180  
 acacctagca ggtatgagtc acagaagcga cgcgactgga acacgttctt gcagtacctc 240  
 aagaaccaca agccgcctct cgcgttgta cgggtgtancg gagcgcctgt gatcgagttt 300  
 ctcaagtacc tcgaccagtt cggtaagacc aaagtcacg tggcggcttg tccttacttc 360  
 ggccatcaac aacctccgct tccttgctca tgccctctca agcaancttg ggggatttct 420  
 catgctt 427

<210> 1031  
 <211> 439  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-024-Q1-B1-G3

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ttttggcaaa tcgtgaactg ccacgtcttt aaggcatcag tgaagcaaag atggactttg 120  
acgaggagct aaatctttgt attacgaaag gtaaaaatgt tgatcattct tttggaggag 180  
aagcttcttc cacgtcccca agatctatga agaaaatgaa gagtcctagt cgtcctaaac 240  
cctattttcca atcctcttct tctccttatt cgtagaggc tttccctttt tctctcgatc 300  
caacacttca gaatcagcaa caacaactcg gatnatacgt tccggtactt gagcaacgac 360  
aaagaccoga caatgcaang gcaagaanca aatggatttc ctttagtcc ccaaaaaaca 420  
acaacagcaa gcaagcaan 439

<210> 1032  
<211> 109  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-024-Q1-B1-H12

<400> 1032  
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cggaattcgg ctcganctcg agccgaatcg gctcgagcta gttctagat 109

<210> 1033  
<211> 447  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-024-Q1-B1-H3

<400> 1033  
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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnaagat atgcttgctg cggttgcttg gccggatgat ggattttccg atgaagagat 240  
tgttgacttc ttggtggctt tacttgctgc cggttatgaa acaacctcca cgatcatgac 300

tctcgccgtc aaattttctca accgagactc ctttagctct tgctcaactc aaggaagagc 360  
 attaaaaaga ttaaggcaat gaaagagtgg atcctaanaat ccttgaatng gagtgaatta 420  
 caanttcaat ggccantcaa acaaatg 447

<210> 1034  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-07-Q1-B1-F1  
 <400> 1034

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 atggatggga agacattact cgaaatagta ttggcggttat gcacagctta gatgaagatg 120  
 gtgatgtggg tatagctttc tgtttcagga gtaaaccctt ttcattgttct gtgacagatg 180  
 ttgaaaaggt tacgcccttt catgtgggac aagagattca tatgacacca tcaatcacc 240  
 aaccacgact tggatgggtca aatgagactc cagcaactat tgggttaaagt aattgagaat 300  
 cgacatggac gggactctga atgcacaagt gactggtaaa caaacgttgt ggagggtctc 360  
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 <213> Arabidopsis thaliana  
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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnncgatec tctccacgtc tcttgggact 180  
 ttcacgaagc ttcgttagct ctccgatggc gactgctctc acttctgatc gtaatctcca 240  
 tcaggaggat cgagccatgc ctcaagcttc ctactgaagt ttaagggggg atatgacaag 300



tnanggggttg tggttaaagtc tgtgaagaac aaattagaaa ccantggaag gtatgagaaa 360  
 ttggaggggtg gatttgtcca aatcaaagtt gtganggata acttgggatn ntccccngt 420  
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<210> 1036  
 <211> 510  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tgggattctg ggctgcaagt tgcggcaaac ggtttgtggg agggttgcca aaatgtnncc 180  
 ctggacttgg ggattctccg gcgagacaac cacaaactga nacttttgtc cntggggcgt 240  
 tgcaccggcg atgaaataat cagtacgagg cttcagggga gagtaacaac gctgagaacy 300  
 atgcttgcaa gtgtggatct gactgcaagt gtgatccttg cacctgcaag tgaagaagcc 360  
 tttttaaata ancagagata atcgagtctc ctttaattaat taagttattc aataaagtaa 420  
 accatatata aggatggtgt ttttaggttt ggtttaagtg taataatggc ttcagcttaa 480  
 cctttaagcc cgatnaattg tcctttgtgg 510

<210> 1037  
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 <212> DNA  
 <213> Arabidopsis thaliana  
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 ggtgaaggag ctcaagaacg gaaggttggc tatgttctct atgtttgat tcttcgttca 180  
 ggccattgtc accggaaagg gaccgttggg gaacctcgcg gaccacttgg ctgatccant 240

caacaacaat gcatgggcct tgcctaccaa cttcgtcccc ggaaagtgag ttttaatttgt 300  
gatcgagttg tgtgtatccg gtttgttgca tcctggaaat gtgatgcaaa tttcatatct 360  
tgtaaattac cttgtanggt tggtgaaaaa atttatnaaa cttttat 407

<210> 1038  
<211> 464  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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cgagtagaac tactgggttc aggatactgg aaagcaactg gatcacctgg tccagtcttt 120  
tccaaagaca acaaagtgat tggagcaaag aaaactatgg ttttctacac tggaaaagca 180  
cccacaggaa gaaaaactaa atggaaaatg aatgagtacc acgccgttga cgaaacagtc 240  
aacgcttcca caatccctaa gctgagacgt gagttcagtt tatgtcgagt ctacataaca 300  
acaggaagct ccagagcttt tgatagacgt cctganggag ttttgcagac agagaagaat 360  
gctaacaagt gatgttgacg taactgagac atccttccgt tttggaaaag ctactggga 420  
aacttcnatt caggaggaga acatattgan gtcccaatga acac 464

<210> 1039  
<211> 429  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-07-Q1-B1-G2  
<400> 1039

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agcttacctc gctgagttca tctccacttt actctttgtt ttcgctgggtg ttggctcngc 180  
cattgcctac gcaaagctga cgtcggacgc tgctcttgnt anaccgggac tagtggccat 240  
cgcggtttgt catggggttg ctctctcgt ggccgttgca ntccggagcc aacatctecn 300

gtgggcaatg tgaaacccaa cgcgcacttt tggctcctgcc gtcngtgggc aaaatcaaag 360  
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 ccctccna 429

<210> 1040  
 <211> 435  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 1040

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 caacggtcgc aacagangaa tcaccagcga cgacaacaga gggtacggat cgtggattgt 180  
 ttgattttctt ggggaagaag gaagaggaag tgaaacctca agagacaacg acgctcgagt 240  
 ctgagttcga tcataaggct cagatntctg aancgggagt taactgccgg agcacgaagg 300  
 aaattgaagg agaacaagat tactccgcta aaaggagctt caaagaaaag accgaggaag 360  
 atgaggagaa caagccta atgcatccaaa agcttcaccc gattcaacaa gctcctcctt 420  
 cctccttcga gcat 435

<210> 1041  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 1041

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 gcgaagagag aattcgtatt ttgaaagggt tagcttcagg aatattgtat ttgcatgaag 120  
 gatgggagtc taaggtttta catagagata ttaaagctag taatgtttta cttgaccgag 180  
 atatgatacc gaggccttagt gattttgggt tagctcgggt tcatggacac gagcaaccgg 240  
 ttaggaccac gaggggtggtt ggtacanctg gctatttggc tctgaagtg gttgaagacgg 300

ggcgtgcatc gacacagacc gatgtttttg cttacgggat attggttctt gaagtaatgt 360  
gtgggaaaag acctantgaa gaanggaaan aaaccgttga tggattgggt tttgggg 417

<210> 1042  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 1042

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cactttcgac gatgattata gcgagctgct tagagctgct tccgttagga gtttaggtca 180  
taagaatgag attgacatga tcatannnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnngcggt gcgatgggaa cggttacggt taaagggcgg tttgcctaaa gagctcnaat 300  
tgttgggatg acaatgggta aggtttgatg aaagaaagat gaagaanaag ggtntgttaa 360  
gaatcaaaag aanggatntg atttcctaaa acctcgtaac aaattacatg ctgttactat 420  
taaaag 426

<210> 1043  
<211> 528  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 1043

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aagcaagggg aacatacact ttactggggc aagacaattt acacaactcc ttttgttcct 120  
ccgaagaatg ggctcctgat ggggattccg cttgaagcaa ccgggagggg ttacanggac 180  
tgggtacaaa cccaaggat ctatggggaa aaacaagtac tttctttggg gggttaagaag 240  
aaagggtttg gccggttcaa ggtaaccggg cttaccccggt tgggaccttt cttcaaccct 300  
ccttgggttt gggaaagatg agaagtcact gaaggagttg aaactcaagg aggtcaagaa 360

cggtagactg gctatgctcg ccctcctcgg ttactttatc caaagggact anttgaccgg 420  
 tgttgggaaac cttatcagaa cctggccttt gattaacttt ggcttgattc ccgttcaaca 480  
 acaaacgttc ttgaccaanc ctcaaagttt ccactgaagg gtgattaa 528

<210> 1044  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-07-Q1-B1-H3  
 <400> 1044

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 ttatccacca tcagtagatc cacttccgcc accagggcgc cacctaagct cgctttgaag 180  
 tcctctttga aggatttcgg tgtcatcgca gtggcaacag cagcttcgat cgtttttagct 240  
 ggaaatgcga tggccatgga ggttctttta ggattcgacg acggttccct tgctttcgta 300  
 ccatctgaat tcacggtggc taaanggaga gaagatctgt tcaaagaaca acgcaagggt 360  
 cccaacataa cgtgggtggt cgacnaaanac aagattccca aatgggggtt ggacgcaagc 420  
 aaagatnt 428

<210> 1045  
 <211> 468  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-07-Q1-B1-H4  
 <400> 1045

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 cttaacattc gtagaagaaa gagagtaatg gttaatgtga gctcaaggaa gctcatgacc 180  
 cgtctacggc gaatggttgc tccggagacg agtttttccg gcgaggttga cggtgctaca 240  
 ctttatcgac tcacggctga tcacattttc ttacttcaag caagaatcca acttcttcgt 300

ccgtattcct ccggtttggt gggcccccaa attcgaagat acacgttggc taaaaaaaaan 360  
 gaccaagaaa tggmataatt aaggntaaaaa cgtcngtttt ccccaaataa aatcncctaa 420  
 gcaatcaact tataagttcg tcctaatagcc gaagctataa tttgaacg 468

<210> 1046  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-07-Q1-B1-H7  
 <400> 1046

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 cttctctccg gcggttcaga cttatcgac tcgttgccgc cgaattgtaa ccgagccgag 120  
 tgtccgagtt atgaggttgt ccacgccggg aatggctacg agattcatcg ctacaacacc 180  
 accgtttgga tttctaccga accaattcaa gatattcttc tcaacgaagc ttctggcaac 240  
 gattgtctga ttacatgaac gggaacaacg attatcacca gaggatagag atagcacttc 300  
 cttatatcac ccangtctct canaacttga gcaccttcat agtctctttc ttcgttccca 360  
 aggcatcaca actgatncaa ctccgggaaa caacctccac gtncagagat gggaat 416

<210> 1047  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-07-Q1-B1-H8  
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 taactcatgt ggcatgttc ancggcaggg acatatggaa gcagacttgg tctgcagtga 180  
 acaccacgaa gctggacatc catggaaaat tgatgcaaag ctacaaaaaa gtgcctgagt 240  
 ggtggtttta tatantgctg gcaggaagtg taaccatgtc tctcctaata tctttgtgtg 300  
 naaaggagtc agtgcagctt ccaaggtggg gaatgctctt tgcttttgca ttggccttca 360

ttgtcacact ccctatcggg gtcattcaag caactacaaa tcagcaanca agatatgata 420

<210> 1048  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-08-Q1-B1-A4  
  
<400> 1048

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acaaggccaa ggatgctgct gctgcagctg gagcttccgc gcaacaggcg ggaaagagta 180  
tatcggatgc ggcagtggga ggtgttaact tcgtgaagga caagaccggc ctgaacaagt 240  
agcgatccga gtcaactttg ggaagttata atttcccttt tctaattaat ttgttgggaa 300  
tttcaaataa aatttgggaa tcataattga tcccgtactc ancgacttg ttgttgtttt 360  
taatgttgta atgttttaat gtttcctccc cctttanatg tactacgttt ggaac 415

<210> 1049  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-07-Q1-B1-C3  
  
<400> 1049

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cggagagcgt cgaagatcag actgagcagg tactcaaaaa catgggggag atattgaaag 180  
ctagtgggtg tgattattcc tcgggtggga agacaacaat catgttggct gatttggctg 240  
acttcaagac agtgaacgaa gatatatgcc aaatacttcc cagctccttc tocaacacga 300  
tcgacgtatc aagttgcaac tttgcctcta aacgccaaag atngaagatt gaatgtattg 360  
caacactcca gaacactcaa aatcaatctc ctacnaaggg tantttgggc ccggaaaaat 420

t 421

<210> 1050  
 <211> 426  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-07-Q1-B1-C4  
  
 <400> 1050

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 gcgatttgat gcgcgtcgtc gtggtggaaa cagcggggtt ggagaatggc agaggctgaa 180  
 aagtcgcgcg ttaccggcac aggtgcgggtt agatggaacg gtgaggttta actgcgtcgg 240  
 agtggaagat aaagtggcgg tggttcangt ggtgggatgc attgacnatt tgcttcggcg 300  
 gaattggaag ggtgagaaaa ggattanaga aaanccttgt gttgccgtat gataccaang 360  
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 ttgctt 426

<210> 1051  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 1051

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 tccgggatcg tttctaaact ctgtggttga cgaagtcac ggaggaggct catcaaacgc 180  
 tcgtgacttc accggctatc anccgtcgtc ggataacttc atcggtaacn ttttcaccgg 240  
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 cgacggacaa gaaacagtag gcaatancaa taataataat agtantaaan atatecntcc 360  
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<210> 1052  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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attgtttgtgc gagcccgggt tcggagactg ggagtaagaa ggggaaacca aagatcaaaa 180
gtaacccggtt ttatagttaa gcatacacta cgaatggatc tggaactggg ttcaanctct 240
ctgttttgaa agatccaaca ggacatgata tatctcttaa gtatgatctg gggcgtgagg 300
ttgggtccgg anaatttgggt attacttacn tgtgcactgg atatcaaaac gggcgaaaaa 360
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 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 1053

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 <212> DNA  
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<223> unsure at all n locations  
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<400> 1054

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ttcagtggag ctatagtatc gccgccggaa gagttagtgg ctgccggaag cagaactccg 180  
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 gtttctgtac aagtcggcga ctatgttcan cttgcttaca agccatcaca acganagtcc 300  
 tctccggcct aaatnatttg gagctaaggg atgaantatt ctgcttggtc caanggtcac 360  
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<210> 1055  
 <211> 343  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-07-Q1-B1-D12

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 aaggggggcta agtatttccg agttaagatg gatattaagc tctatgaatg ttactaagta 180  
 gctaagaatg tgtgttttgt ttgaaaattt tatgttgaca cagagaaatg tgtttacaat 240  
 aattaagnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
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<210> 1056  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-07-Q1-B1-D2

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 tgtaaatcan ttaccgccgc cgtgttctgt cgagttgact cagctttctt atgcatagca 180  
 tgtgacacaa gaatccattc cttcactcgc cactgagcgc tgtgggtttg tgaaagtttg 240

tgaacaanct cncnccgccc tcacttgcaa agccgacgcc gncgctcctt tgctcanttt 300  
 tgatgcccga tattcactct gctaatectc tegccaaccc gtcatchaaa gtgtccccgt 360  
 ccaaactttc ctnagtcaa ccgaaaacga ccgtcgccaa aatctcanct tcctcgactt 420  
 ttgggaaccc 430

<210> 1057  
 <211> 436  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-07-Q1-B1-D4  
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 gaagatacgt tgaacgcttt ggagtctggg gctattgaga cactgattgt atgggaaaat 180  
 ctcgatatca acagatatgt gatgaacaac agtgcgactg gtgaaactgt gatcaaacac 240  
 ctgaacaang gaacaagaaa gccaacactg aagaaactca aaagtaaccc gacagttgac 300  
 cttggctttg gaccctngaa ggaaaaagct gtcnttaccg gaattggctt gccaatgagt 360  
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 ttttgcaaaa gggttg 436

<210> 1058  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 1058

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 tctctacaat ctctaatacc tatggaacct tctccgtgca tcttctactc ctttaccttc 180  
 atcatcatct caacgaacaa caactcatga cagctccgat ttccaattct gttaattccg 240

ctgcgtctcc ggcgatgact gtaactacca ccgaaggat tgtattcaag aacaattcgc 300  
 aaacctaataa tctcctctcc caaanctan ttcttctaan ccaacaatcn ggngctcaga 360  
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<210> 1059  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-07-Q1-B1-D6  
 <400> 1059

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 atcatccaaa ttgggtataa caaaagaaac taacaagaag aagatcgaat tcaagaagaa 120  
 nagatggaga atggagcaac gacgacgagc acaattacca tcaaagggat tctgagtttg 180  
 ctaatggaaa gcatcacaac agangaagat gaaggaggaa agagagtaat atctctggga 240  
 atgggagacc canactcta ctctgtttt cgtacaacac aagtctctct tcaagctgtt 300  
 tcngattcnc ttctctccaa caagttccan ggttacnctc cnaccgntng gtcttccna 360  
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<210> 1060  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 1060

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 cccctaataa ggtggagttc gtattaagna agcttgggag gtaatcatgg gtcaatagct 180  
 ggtttcctgt gtgaaattgt tatccgtca caaattccac acaaacatac gagccgggaa 240  
 gcataaagtg taaagcctgg ggggtgcctaa atgaagttga ggctaaactc acattaaatt 300  
 gcgttgccgc tcaactgccg cctttccaag tcggggaaaa cctgtcgtgc caagctgcat 360

taatgaaatc cggccaaacg cgcgcggggg aaaaggcggg ttgccgtaat tgggggcgcc 420  
aagggtgggt ttttcnttt caaccaagtg aagacngggc aaacaagctg aattgccctt 480  
caaccgctg gccctggaa na 502

<210> 1061  
<211> 420  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 1061

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aagattggta tgatgttaag gctccttcaa tcttcaactca caggaatgtt ggaaagacac 180  
ttgtttccag aactcagggt accaaaattg cctcagaagg cttgaaacac agagtttttg 240  
aggttttctc tgctgatctt caaggatgatg aggataacgc ttacaggaag atccgtctca 300  
gagctgaaga tgtccagggc aaggaaacgtt ctgtgccaat tccggggcat ggacttcaac 360  
aaccgataaa ccttaagtca aatgggtaaa aaattgggaa actttgatna aggcccatgt 420

<210> 1062  
<211> 109  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-07-Q1-B1-E2  
<400> 1062

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ctcaaaaaan nnagaaacag aanaaaaaag atncnaaatg naaaaaaaaa 109

<210> 1063  
<211> 412  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-07-Q1-B1-E3

<400> 1063

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gcttattgtg gtcncttcgg tgccctctctt gtcgtctcct ggattcttcg tgagacnggt 180  
gtcccgctcc tcgagaaact cccttggatc aatacttctg attcanatac canagaatgg 240  
tatcancann annctgttcn tcgtgtgagc nttgggaatt ncctctctt tgcaatntan 300  
gctttgatca tgattggtgt caangaccaa aaatgacaag cgtgactccn tggnaaccatg 360  
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<210> 1064

<211> 394

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-07-Q1-B1-E5

<400> 1064

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aanaagcncc ggtcgatgag attcatcccg gtgaactcaa tcagcccatt gaagtttctc 180  
atctanctgt tcacaaatgc aatgagtgtg gccaaccttt gcctgagaat tttgaagctc 240  
ctgctgatga gccctggact accggaatat tcggctgcac tgaggacatg aatagttttt 300  
ggctgggact tttctgcca agtgttctat ttggacgtgt ctatgaaact ctgagtgatg 360  
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<210> 1065

<211> 416

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-07-Q1-B1-E7

<400> 1065

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cacggccgcg ctgaaatcca cgaccacggc cgcgctgaaa tccacgacca cggccgctct 120  
gaagaagaag actctctccg tctcctccct tctcctcctc cgtctaagag acaaggcacc 180  
cccagacgcc atgatctctc tcactccctc gttgtttctg aacaagacgg ttgttcctgg 240  
atgttcacaca cgctctctc tgcgccagcc tagaactata attactcctc ctgcttcctt 300  
gagagtcttt tctctctcg gatctaacca ggattccacc ggcagcgttt tgattgagac 360  
cactgccact tcctcctcct ctctcgaaac tccgccgccc acaattgttc ccaaatt 416

<210> 1066  
<211> 436  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 1066

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atcatgacat caaacgtcgg aagcagcgtg attgagaaag gaggangacg tatcggattc 120  
gacttagact acgacgagaa agacagcagt tacaacagaa tcaagagcct tgtaacagag 180  
gagctgaaac aataacttcag acccgagttc ctaaacaggc tagacgagat gattgtgttc 240  
agacagctaa canagctgga agtgaaagaa attgctgaca tactgttgan ggaagtgttc 300  
ganaggttga agaagaaaga gattgagctt caggtgaccg aaagattcaa agagaagagt 360  
agtagaccga aggggtataac ccgagctatg gagcaagacc gttgagaaga agccatccat 420  
gaaggctttt agaggg 436

<210> 1067  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-06-Q1-B1-G2  
<400> 1067

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attcaattct caatgcctct tcttctccct acctcttct tcaaaacgac ggccaccgtc 120

gtaatcgccg gcgtttcatc tattgccacg gcgatgattc tcacgggtccc ttccggtttcc 180  
catttcgtag tctcttgctt tccgattatt tacgataaca ccgtcttcct cttaaaaacca 240  
ccgtatcttt acttagtcat caactctatc atcgtctgca tcacgctac ttctaaactc 300  
actcataaat cgctctccgt cgatgactct gagatctcgg aagtagtgac tccaataccg 360  
ataccgggtac cggttcattt ancttctgat atccaattcc ggtaattta aacgtgggt 419

<210> 1068  
<211> 452  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-06-Q1-B1-G4

<400> 1068  
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cttcgccatt gttactcaca cagagaaaat ccaatctcac atcgattcaa aaactcccat 180  
tttctctaac tcgaggtagc aatgatcttt ctccattatc tcttactcga aaccctagca 240  
gcatcagtct gatggtgaaa gctagtggag aaagctcaga ttcacgact gatctcgacg 300  
ttgttagtac gattcagaat gtttgggata agtctgaaga taggttaggt cttattgggt 360  
tgggttttgc tgggtattgta gctctttggg catcattgaa tctcatcacg gnaatcgaca 420  
aattgcccgt tatctcgaac gggattcnaa ct 452

<210> 1069  
<211> 114  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-06-Q1-B1-G6

<400> 1069  
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cnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnaatggaga aataaaaaaa aaaa 114



<210> 1070  
 <211> 205  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: ARABL1-06-Q1-B1-G7  
  
 <400> 1070  
  
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 gtgtgtaata gtgaggtcgg atctaaactt ttatgcgtgg tttttatatg aaattgtcca 180  
 ttgtgggtta aaaaaaaaaa aaaaaa 205

<210> 1071  
 <211> 466  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-06-Q1-B1-F6  
  
 <400> 1071  
  
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 ccacctcnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnaattcctt taattaggtt tgggattacc aatgaatgtt ctctctctcg 240  
 cttgttatgc ttctacttgg ttttgtgtgt tctctatatt gttctgggtc ngctttaaga 300  
 tttgatgtaa tagttcgtga ttaggtatatt tggatatcng naacntaatg ttaattcant 360  
 tgtnttttan cgtatgannc gtgnacttaa cattctnaaa atgacaaaat ttcttccggn 420  
 naatataacc cctgttgatt ggaaaaatgg gattaataac gggcgg 466

<210> 1072  
 <211> 460  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-06-Q1-B1-H4  
  
 <400> 1072

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 ccgaatctgc tcttccttat caccatgaac tgttcttggg gaggaagcgg atgaattatt 180  
 ataagcccaa cagtgccata ggaacaccat catcaactag tgaccacgct ccaaggcagt 240  
 aatggggagga agttgatgag tatatataga cccaatggag acatatttac aggaccatca 300  
 ggcagtgggc atgggtggggg tcgcactcca agccccctaa gtatatatat attaattgtgt 360  
 aatcaaggac tcacaagcga agctttaatt ctgcattacg tataacgtat gcgttggtgt 420  
 agtatatgtt aatttcngtt ttcacaagcc aagtttttca 460

<210> 1073  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-07-Q1-B1-A1  
 <400> 1073

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 aaactgtaga gcttgtgaaa gccaaagggg gaaaagtaag ccgggagcct ggtcctgtca 180  
 aaggtggcaa aactgtaata gcattcattg aagatcctga tggttacaaa tttgaactct 240  
 tggaaagagg tcctacacca agaacctctt tgccaagtta tgctccgtgt tggatgatccg 300  
 atagggccat aaagttctat gagaaggctt ttggnatgga acttctgcga acaaagagac 360  
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<210> 1074  
 <211> 483  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-07-Q1-B1-A12  
 <400> 1074

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ancctttnac ttinncaaaa tectaacgga atngncncc ncaaaatngg tntcncnc 120  
 tctgcttng accggaaagg cgnntaanct atcccngng gcctccgang tatttggaac 180  
 cggccgaatc acatgcgcaa agcctccaag cccaccggtc catccggcag cccatggtac 240  
 ggatccgacc gagtcaagta cttgggtcca ttctccggtg agcctccgag ctacctcact 300  
 gggagagttc cccggtgatt acgggtggga cactgccggt ctatccgccg atcccagac 360  
 cttcgctang aaccgtgagc tagaaattta tocacaagca agatgggcca tgctccggag 420  
 ccctaagctg cgttttccct gagctattgg gctaagaaac ggattgaaat ttccggagaa 480  
 acc 483

<210> 1075  
 <211> 484  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-07-Q1-B1-A3  
 <400> 1075

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 tcagtacttc ttgtaccagc tacttcgagg actgaagtat atccactcag ctaacattat 180  
 tcatagggat ttaaagccga gcaatcttct gttgaacgag aattgagatt taaagatttg 240  
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 gagatggtat agagcacctg agcttctggt gaactcttca gattacacag ctgctattga 360  
 tgtttggccg ttggttgat ccttaaggag cttatgaata gaaagnctt gtccctggt 420  
 aaaagancat gttcatcaaa tgcgcctaata gacaaanttg cctggnacac cgacaggaat 480  
 ctga 484

<210> 1076  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-07-Q1-B1-A4

<400> 1076

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cgatttccat ctctatctg tcatcggagc tttctacttc cgaaggagta aaggatcaat 180  
caagagtttg atcttggttag aatagccgat aatggaagga gatgtgttgt caggatttgg 240  
agacagacac aatatggatg ggaaattggt gcagagtttc cagaagagct ttgtggatgt 300  
tcaagacatt ttggaccaa accgattaat tgnttcaacg aagatnaatc agaancatga 360  
atcgaaacaa ccaagataac ttgggtcnaa acgtgggggt tatnaaaaga gctcaacaac 420  
aattatcag 429

<210> 1077

<211> 412

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-07-Q1-B1-A6

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ctcggtttca agtgttcaac tttaagtttc agagcttttag catcgccacg ttccttgaac 180  
tatccctgc agtgtatcaa gcgttcatca gttcggatgg agagtagcaa cttttcttct 240  
ggtgtcagaa ccgagagtag tgtgaagcca agaggagcat tgatagttct agaaggtctt 300  
gatcgcagcg ggaaatcaac acagtgtgct aagctactct cnttcttgaa tggtttagga 360  
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<210> 1078

<211> 385

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-07-Q1-B1-A7

<400> 1078

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ttaaggactt caccggtaaa tgctccgacg ctgtcaaaat cgccggattc gctcttgcca 180  
cctctgctct cgtegtctcg ggagcaagtg cggaggggagc tccaaagaga ttgacctatg 240  
atgagattca gagcaagaca tacatggaag tgaaaggaac tggaacggct aaccagtgcc 300  
ctactaattg acggtggctc ctgagacttc tcgttcaaaa ccgggaaagt atgcaagaaa 360  
agaagttctg cttegaacct anttc 385

<210> 1079  
<211> 433  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-07-Q1-B1-B3  
<400> 1079

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cgcangaaat gggccattgg gagaggccga ggacttgctt taccctgggtg gcagcttcga 180  
cccattgggt ttggctaccg acccagaggc attcgtgag ttgaangtga angagctcaa 240  
naacggaana ttggctatgt tctctatgtt tggattcttc cgntcaaagc catcgctact 300  
gggtaaangg aaccgataga naaaccttgc tgaccaattg ggccgatnca gttacaaca 360  
acgnattggg ccttcgcanc aaaantttgt ttcccggaaa agtgaaccca agttttaacc 420  
tgtaattttg gcn 433

<210> 1080  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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gagcagtggc cgttgcancg gctacggtgg acacaaacaa natgccnatg accgnagtcg 240  
tgttccagcc tttcgaanag gtgaagaaaag ccgatctggg ccattccant cacatctcat 300  
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<210> 1081  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-07-Q1-B1-C1

<400> 1081

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aacctagctt cacaagaacc aaaccagttt caactactca agtaccacaa aggagctctt 180  
ctctccggca aaatctccgt taacctaatc tggtagggca aattcaaacc atctcaaaga 240  
gcaatcatct ccgacttcat tacctcactc acacacactt ctctacgtc caaaactctc 300  
caacaaccat ctgttgccac gtggtggaaa aacacaagaa aaatactaca aactccgcaa 360  
caaccaagca aaaactcatc aactccgggc tcctaactcc tcgggaaaca aatcatccga 420  
cgag 424

<210> 1082  
<211> 445  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 1082

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caagaacctt gtgaagaagt gccttgagct cttctttgag attgctgana acaaggaaga 180  
ctacaacaag ttctacgagg ctttctctaa gaacctgaag ctcggtatcc atgaggactc 240  
ccagaacaga accaanattg ctgagttgct ccgttaccac tcaaccaaga gcggtgatga 300  
attgactagt ctcaaggact acgtgacaag gatgaaggaa ggtcagaacg atatcttcta 360  
catcactggg gaagaacaag aaggctgttt gaagaactct ccattccttt gaagaaagct 420  
caagaaagaa aaggtattga ttttc 445

<210> 1083  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-022-Q1-B1-G11

<400> 1083

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gtcgtcttaa caaagttgaa aatcatgaag acgaaacggg gtcgttttac atcaattgtg 180  
acggctctgg tgctaaattc atccatgccg tatccgattc tgtttcggta agcgatcttc 240  
ttcgacctga tggctctgtt cctgactttt tcaggatttt ctatcccatg aacgggtgtca 300  
aaagcatcga cggcctctcg gagcccttgc ttgctttaca agttaccgag atgagagatg 360  
gagttttcat cggttttggg tacaatcaca tggtcgcaga cggtgcttcc atctggaat 419

<210> 1084  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-022-Q1-B1-G12

<400> 1084

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agatgttgcg gttgattgct acgatattga aagatgtcgg tccatgttcg atgttttatc 180  
ttgctgctgc tgtatctgac ttctatgtgc catggttaag catgacagag cacaaaatag 240

aatcaggatc tggtcctttg gacataagac tagctcaagt ccctaaaatg ctttcaatct 300  
 tgagatcaaa ttgggctcca aaggctttct gcatatcatt caagcttgag acagactcaa 360  
 agatttttgc agagaaagct acaaaggctt tacaaaaata caaagtgcac gca 413

<210> 1085  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-022-Q1-B1-G6  
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 gctacagagg ttacaacggc tgctcaagat gctgctcgta tgccggagaa agctgttcag 300  
 actcagcccg gtcactaaac catnatatta ncaatccaca acaatccagt nattccatta 360  
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 gangcactat 430

<210> 1086  
 <211> 452  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-022-Q1-B1-G8  
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 aagagaacaa gaaacaaaaa caaacgcttg tttaagtgtg gttctataga tttcttgatga 120  
 atgtcttctg aacaaggaaa tggatcgaat ccttcacagt caccggaggt agaagggact 180  
 aaaacaatcc cctttcgccg gagattgcaa agaggacaaa gagttttcgc tccaaagctg 240  
 atggaggctc tacgtcgatc aagggtgaag tctgaagaag ctccggtaag gcatcttagt 300



cgtagatgga gagccacaac gggcgcaaga aggtataatc cctaaaagct cctaacgacg 360  
 ctccttcaaa cgatttgccg gcggaaccg caacanntcc gggggacaac gggcgacaaa 420  
 agtcctttgc caacgaaccg ctcnttggtg ca 452

<210> 1087  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 <223> Clone ID: ARABL1-022-Q1-B1-G9  
 <400> 1087

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 aagtagagaa ttgcctgaa cttcatccaa aatccagaaa gaaaaaccta tcattcacca 180  
 agaagaaaga acccaatatc attcccgcg agcaattcga ttacttgtgt agaaacggna 240  
 gtttgctcga agctgagaaa gctctggact cgttgtttca acaagggtcc aaggtaaaac 300  
 gaagcactta cctcaaattg ntggaatcgt gtattgantic tggttctatc catttgggtc 360  
 gtatccttca tgctcgggtt ggtttgttta ctgaacntga cgtcgttgtg gaaacgaagc 420  
 ctgttganc 429

<210> 1088  
 <211> 461  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-022-Q1-B1-F4  
 <400> 1088

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 tccgttgatg ccggaacaa caactatatc ccaactgttg ctagaagcaa ctttgagcca 180  
 tatggacggg actttgttgg tggaaagccg accggacggt tttgtaacgg aaagattgcg 240  
 acggatttta tgtccgaagc cttagggctt aaaccaatca ttccggcgta cttgggatcc 300

ttcttataac atttcggatt ttggcaacaa ggtgttacct ttgcctccgc ctggcaactg 360  
gctaagacaa cgccaacttt ctgatgttcc gtccgggtact aacctcctaa tgggaaacaa 420  
actccgaaat actacaanag aaataccaaa ccaaaaactt t 461

<210> 1089  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-022-Q1-B1-H2  
<400> 1089

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aactcagtca acattactct ggtgtctgaa gatgaactga agcatgcggt tggattggta 180  
cggccagtaa gcatagcatt tgaggttata cactcgttcc ggctttacaa gagtggagtt 240  
tacaactgata gtcactgtgg aagtactcca atggatgtga accacgcggt tttgggccgt 300  
tggttatggg agttgaagac ggtgtaacat attggctaata aagaactcca tggggaacgg 360  
attggggcga caaaaggtac ntcaagatgg agatggggaa gaacnttggtg gtaatgctac 420  
atgt 424

<210> 1090  
<211> 469  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 1090

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ctcgacacag agaaagctta tccttataacc ggtaaagatg aaacggggcaa attttcagct 180  
gaaaacgttg gtgtacaagt cctcaactca gtcaacatta ctctgggtgc tgaagatgaa 240  
ctgaagcatg cggttggatt ggtacggcca gtaagcatag catttgaggt tatacactcg 300

ttccggcttt acaagagtgg agtttacact gantagtcac tgtggaagta ctccaatgga 360  
 tggtgaccac gcggttttgg ccgttggtta tggaatttga aganggggggt accnaattng 420  
 gcttattaag aaccccntgg gggaaccggt ttggggggcca acaaagggt 469

<210> 1091  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-023-Q1-B1-A1  
 <400> 1091

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 ttttttttta taaggattcg atgaagaaat tgagaagcta ttactcaaat gtgagannnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn gagaggaaat 240  
 ggatattttt ccctctattg attgggtcaa tctctgcttg ttcttaactc ctctcaciaa 300  
 caaacctaac tttaaccaa cgggaggagg tcccgaattc ccccttttaa ccgaacccgt 360  
 tttgggttaa cgggtntggg tcaacaactt tcgttggaat ccaaaatcaa acctcaacia 420  
 atct 424

<210> 1092  
 <211> 503  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-023-Q1-B1-A11  
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 ctttctatg cctcctggaa actacatggg atctggttat cctgctatgc gaggtcatcc 180  
 ttttccattt gcttatccca gaggaattgt tagtcctcgc cctctaagta gctctcctgg 240  
 atctatatca cctggcatgt caacaccttt aggcattggg ttgagttctg tgggttcaaac 300  
 cgaagggtcca gaagggtcaa atctgtttat ctataacata cctcggggagt tcggggatca 360

agaactcgcg gctgcatttc aatctttcgg tattgttctg agtgccaagg tttttgtaga 420  
 caaagccact ggtgtaagca aatgtttcgg ttttgtttagc tatgactcac aagccgcggg 480  
 gcagaacgct attgacatga tga 503

<210> 1093  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-023-Q1-B1-A2  
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 ggcgactatg atatgtatcg acaactccga gtggatgcga aacggagatt actctccgtc 120  
 taggttacag gcgcaaacgg aagctgttaa tcttctttgc ggagccaaaa cccagtcgaa 180  
 tccggagaat acggtgggga ttttgacaat ggctggcaaa ggagttagag tatttgacta 240  
 actccctaac ctctgattc tggnaaaatt cctgggcctg gtaatgcaag ggcttgatgt 300  
 nggaaggaga aattaactta accgcaacta tccanattgc ccaactaact cctaagcatc 360  
 gccaaaacaa gaatcaacgc caaagggata atgnttttgc cggaagtcca atcaag 416

<210> 1094  
 <211> 508  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 tgcatataag gccncctgga agttactcaa ggggtgctgat ggcgttcttg tgccggggagg 180  
 ttttggcagt agaggtgtag aaggaaagat gctggcagcg aaatacgcca gagaaaacag 240  
 aattccatac cttggtatct gtctaggtat gcaactcgct gtgatcgagt atgcaagaac 300  
 catactcggg ttggcagatg caaattagca ctgaactttg atccaaacac caaaaaaccc 360

cctgttggtta attttcaatn cctgaagggg tccnaaaacc catatgggaa ngcactattg 420  
 aggttttaggc tcaaagaaag aacttaattt caatcnaaag gactccaaaa tcaagcaaag 480  
 actatatggg aaacaaaagt ttttggtta 508

<210> 1095  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 cgtggatata caggttatat gtacactgat cntgcaacta tttatgaacg tgctgggcgt 120  
 atagaangaa ganaagggtc catcacccaa attccaatcc tcactatgcc caatgacgan 180  
 atcactcatc caactccgga tcttactggg tacattactt gaaggtcaga tatatatcga 240  
 taggcaactt cacacaagac aagatatatc aaccatcaac gtgcttcac ccttccgcct 300  
 ttaaaggaaa atngtaaccg ccaaggcaat gactccggtta angccaatcc ggaagtgtcc 360  
 nancaaactt gnaggcaaaa taaggcaanc nggaaaaatt ntcaaacc aa taa 413

<210> 1096  
 <211> 431  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-023-Q1-B1-B1  
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 tctgcaactt gagcgcacatc acgtttacta caatgaagcg agttgcggta gattcgttcc 180  
 tcgtgcagtg ctcatggatt tggagcctgg gactatggat agtctcagat ctggaccgta 240  
 cggtcagacc ttctgacctg ataacttcgt ctttgccaa tccgggtgctg gtaacaactg 300  
 ggccaaggga cactacacgg gnaggagctg aactaatcga ttccgttctc gatgttggtc 360

ctaaggaaac tgagaactgt gactgtctcc aaaggggtcc angtttgtca ctcnttggga 420  
agaagaactg g 431

<210> 1097  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-022-Q1-B1-B12  
  
<400> 1097

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acattcggtg cagagacaaa gatgtctgag tatttggtta ctggaggaa aggtttcatt 120  
gcttcttaca tcatcaaata acttctcgaa ctcgacaca ccgttcgaac aactgtccga 180  
aaccacgtg atgaagaaaa ggttggattt ttatgggaat ttcaaggagc aaaacagagg 240  
ctaaagattc tccaagctga tctaacggta gaaggaagtt ttgatgaagc agtgaatggt 300  
gttgatggag tattccacac tgcttctcct gttcttggtc cacaggatna taacattcag 360  
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tctaaa 426

<210> 1098  
<211> 87  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-022-Q1-B1-B4  
  
<400> 1098

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nnnnnnnnnn nnnnnnnnnn nnnnnnn 87

<210> 1099  
<211> 528  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations

<223> Clone ID: ARABL1-022-Q1-B1-B9

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tccaacttcc tccaatttca acctcatcct cccgctgaag ctgtactctt aagctgaagc 180  
atcgctcgtcc tttcttctct gtctttgtaa taattgtact ctttctaata aacaatccac 240  
acggcacaat gcancgcgca atgagctccc gcgtgcgagc ttcggtctga acgcggctac 300  
caagtaccgc accggtgccg gtcttggaaca gangtccgct ttgctcaca ggagctcaag 360  
ttcgggtgttt aggggcgcgc tgctctctc gcctggngtc naaactctgg gcaaagggcg 420  
tttgctaaca aaccttnggc cccaaggggt ccaaaggtct tgattgaatt ccaacctttt 480  
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<210> 1100

<211> 519

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-022-Q1-B1-C1

<400> 1100

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gagtttctcat cgctcttcac gagaagaatc tcgactttga attcgttcat atcgagctca 180  
aagatgggga acacaagaaa gagcctttca tcttccgcaa cccttttggg aaagttccag 240  
cctttgaaga tggagacttc aagcttttgc aatcaagagc aatcactcaa tacatagctc 300  
atttttactc agacaaagga aaccaacttg tctcccttgg ctccaaggac attgcgggca 360  
tagccatggg cattgaaatt gaatcgcatg agtttgaccc agttgggttca aaagcttggt 420  
tgggagcaag tcttaaagcc tttgtatggg atgaccacag acaaaaccgt tgttgaagaa 480  
gaaaangcta agctagccaa ggtcctcgat gggttacgaa 519

<210> 1101

<211> 431

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnnt 180  
 gggcattttta gggtttctca aatttttgac gctttctctt aaaagggttg acgaaataac 240  
 cctttaaggg aaaaaacaaa ggttgaggaa gaccaccaag gtgaaaaaag aaagaagaat 300  
 tcgaacaaca gcagcaaca gataaagtta cgaatttttc ctcttttgta acctttgttt 360  
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<210> 1102  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 atctccttgt tgatgcttct ggggttggtca agcttgctga tttcggcatg gctaaacacc 240  
 ttactggaca aagagctgat ctctcgttaa agggaagccc gtactggatg gcaccagagc 300  
 tcatgcaagc tgtgatgcaa aaagatagca acccagatct ggcttttgct gttgatatat 360  
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<210> 1103  
 <211> 438



<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 gtttcctata aggttttggt ttattctatt tatggaagtc tcttgatttc gcttttataa 180  
 cctcaaaaag catctttctt gatagcacca agtatgattt gatcatcaaa agggtttggg 240  
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 anggtgctca agccaaaa 438

<210> 1104  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
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 gtaatgattg gtacagacta cgccgtagcc tcgagatact caagtcaact ggatcgctc 180  
 cgtcttcctt tcgcattcct tatgattcct ttcgagtaaa tttagttgct cctgatgctg 240  
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<210> 1105  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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tacaaaccct cgtcgccgtt gagccggagc cagttttcgt ctccgtcaag acttttgcgc 180  
cagccaccgt cgctaatttg ggaccagggt ttgatttctt aggatgtgcc gtcgatggtc 240  
tcggagacca tgtgactctc cgtgtagatc cctctgtacg agccggtgag gtctcaatct 300  
cggagatnac cggaaccaca acaaaactca agcacgaacc ctctccggaa ctgcgccgga 360  
atcgctgcta ttgctacgat gaagatgtta gggatcagat tggttgggta ncaataa 417

<210> 1106  
<211> 445  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-022-Q1-B1-D2

<400> 1106

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tgtactccaa acctgattgt ataacttgct gtaagtgttt tacaagaagt ttcccatggt 180  
atgctagtgt tacgtcgagg gaatcaacag agtttgttca actaccaaga gctaagctaa 240  
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gatatcagag ttgggattcc ccaattaaaa ttccggtttc ctgtgatacc ttcntaatg 360  
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<210> 1107  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-022-Q1-B1-D8

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gggggcaagc acaggatcct tgcagagctt gcccgcggtt aacaggaagt cgctttcttg 180

gagaaagagt tgaaggaggt cgagaacaca gatattgtat caaccgtgtg tgaggagctg 240

ctatctgtca tcgagaaagg acccgatcct ctgttgccac taaccaatgg gacctttgaa 300

cttaggatgg gaccggtggt ttgaaggacc aaatggagga gaanggtgca gatgcttaat 360

actttgattc gctaagacag aagtaatgtg ttacatatac tantttcctg ccaaggatat 420

canttt 426

<210> 1108

<211> 86

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-022-Q1-B1-E10

<400> 1108

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nnnnnnnnnn nnnnnnnnnn nnnnnn 86

<210> 1109

<211> 451

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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gtccaagagt tcaagaggaa gagtaagaag gatatcaccg gtaaccaag agctcttagg 180

aggttgagaa cttcctgtga gagagcgaag aggactcttt cttccactgc tcagaccacc 240

atcgagattg actctctata cgagggtatc gacttctact ccaccatcac ccgtgctaga 300

tttgaggagc tcaacatgga tccttcaagg aantgttatg ganccanttt gagaaattgt 360  
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<210> 1110  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-022-Q1-B1-E7  
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 gctctgtttt agccaaaaac agactcttgt tagcttgtga tccatcagct gttcatatag 180  
 ctatgactct agatccagct tacttgcggtg gcacgggtatc tgcagtacat tccatccctca 240  
 aacacacttc ttgccngaa aacatcttct tccacttcat tgcttcgggt anaagtcagg 300  
 gttcctcgcc aagacccta tcctctgttt tccttctttg agttcaaagt ctataccttt 360  
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<210> 1111  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 ctaaagattt tgtcttgaag gtgagattca ttgttccgaa tagagtgaga aaaagactta 180  
 taagattgaa aaagcaagat gcggattttg tgcgatgctt gcgagaacgc agccgcaatc 240  
 atcttttgcg ccgccgatga agctgccctt tgtcgcccct gcgatgaaaa agttcatatg 300  
 tgcaacaagc tagctagtcc ggcaagtang tgttggttta nctgaaccaa gcaatgcccc 360

aagctgtgat atatgcgaaa atgcaacctg ccttcnttta ctgtgagata gacggtaatt 420  
ctctt 425

<210> 1112  
<211> 446  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-022-Q1-B1-F2  
  
<400> 1112

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gtagcagcag taatggctcc ttcaagcgtc gttaggggtt actctaccgc tacctctcct 120  
tctccttctg aaatttccgt caagaaagtt ggtactcata atggaagctt tcaactgcgac 180  
gaagctctcg gctgtttcat gattcgctc gtcgataaat tctccggcgc tgatatcgtc 240  
cgttctcgtg accctaagat attggcagaa cttgatgcag tgcttgatgt tggagggtgtt 300  
tatgatccgg agcatgaccg ttatgatcat caccaagaaa ggttttgaag aagtttttgg 360  
gacatggctt caacactaag ctcaagtagt gctggctctg tttacaagca ttttggnaaag 420  
gagatatagc taaaggaact taatgt 446

<210> 1113  
<211> 406  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-G6  
  
<400> 1113

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attccacatt ttcaagaaat aaggaggcan aaatgttcat atatgaattg gnattatttg 180  
ttttcttatt aggcctatcc tgaagccaan ggaaatgaga tcggaattcc tcggggaatt 240  
ccaattccac attttcaaga aataaggagg caanaatggt catatatgaa ttggaattat 300  
ttgttttctt attangccta tcctgaagcc aaaggaaatg agatcggaat tcctcggggg 360

taccgagctc gaattcccta tantgagtcg tataaattcc gtaatc 406

<210> 1114  
<211> 445  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-G9  
  
<400> 1114

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ttatgttggg ttctggattc tcaagaaatt gcttagcaga ggatactctg ttcacgcagc 120  
gattcgtaga aacggggaga gtgaaattga ggagatgac agagagatgg aaacaacaga 180  
agagagatta gtgggtgtacg atgtanatgt gttggnntat caaagcatac ttgtctctct 240  
caagacatgt aacgttgtct tctgttgcnt anacagccct gaagggtacn atgagaaagg 300  
aggtggattt tggaantgan aaggagcnga ttaaattggtg ggtgggaacc gtttggnnaag 360  
aaacaagaga gtatanaana aagaattgnn ttttccatcc ttcaattanc aagcnttcaa 420  
ntttggagaa gacaacattg ggaac 445

<210> 1115  
<211> 335  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-H1  
  
<400> 1115

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ctcagaaccc ttttgtcctc ttttgttcc cgcaacgcct ottactccac cggattccag 120  
aacgtcacgg tgggacaaac ccccgacctg gtcaccggac ttttcctctg ccgcggagac 180  
ctctcgccgg aagtttgcag taactgcgtt gccttctccg ttgacgaagc gttaactagg 240  
tgtccaagtc aagagagaag ctgtgttcta attacgagga gtgtatactc aagatactcc 300  
tgacaaagat aatctancgg acggggcatt aaaaa 335

<210> 1116  
 <211> 485  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABL1-021-Q1-B1-G5

<400> 1116

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 caaagcgatt ttgaaagatg gaagcgcggt ggctatcaag aaactgattc atgttagcgg 180  
 tcaaggTgat agagagttca tggcggagat ggaaaccatt gggaagatca aacatcgaaa 240  
 tcttTgtcct cttcttggtt attgcaaagt tggagacgag cggcttcttg tgtatgagtt 300  
 tatgaagtat ggaagTttag aagatgtttt gcacgacccc aagaaagctg gggTgaaact 360  
 aaactggTcc acacggcgga agattgcgat aggatcagct agagggttg ctttccttca 420  
 ccacaactgc agtccgcata tcatccacag agacatgaaa tccaataatg tgtTgcctga 480  
 tgaaa 485

<210> 1117  
 <211> 460  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-021-Q1-B1-H10

<400> 1117

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 gtttcaagac tctcgtgaa gccattgatg gagcttacat tgacagtaaa tgtccattca 180  
 ctggaaccgt ttctatcaga ggacgtatct tagctgttac ttgccacagt gccaaagatgc 240  
 agagaaccat cattgttcgt aggaattacc ttcactTttg gaagaagtat caacgatatg 300  
 agaagagaca ttccaacatc cctgcccattg tctcaccgtg tttccgtgtc aaggaaggTg 360  
 accaagtcatt cattgggcca atgcangccg ttgtcnaaga cggttangtt caatgtgctg 420  
 aaaggTgatt ccaaccgggt gcatctgncc tttggtaaaa 460

<210> 1118  
<211> 518  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-H12

<400> 1118

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aattcggctc gagcattgac gcaggtgaag aatctacaga agataaacgc nanggaatca 120  
gatttaggaa tatctgatga agcttcatgg cacgctaagt acaaaaactc tgcataatgct 180  
tacgtcggag gcataccggt cgatctcacc gaagatatgg tgaaattggt gatgtcaatc 240  
ttattcgaga caaggggaacg ggtaaatcta aagggttttgc ttttcttgct tatgaagatc 300  
atgagaagta ccattcttgc tgttgataat ctgaatggac ctcttgtggt gggacggacc 360  
attaatgtgg gancantgtg ggggcataca acaagcacna aganggagga tgaagaaaac 420  
ccgaccccag aatagaaaag gcccttggtt tancaaaanc tttcaaanaa ggaaaatttn 480  
acccttggtg aatccttcaa attttccaca atgaaaaa 518

<210> 1119  
<211> 488  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-H3

<400> 1119

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ttaatttccg tgacttcgac gtggcgcggtg acgcacacgc gcctgattcg atcgagttgc 180  
ttcgtcggca aggtatcgat tttagcgga attgtcgcga cgggtgttgag tcggagaggt 240  
ttgcggagct gatgatgtcg tcggggcttg tttgtaatga ggaagtgagc tgggtgacgt 300  
ttcatagcgc gtatgatttc ggttacttga tgaagattct cacgcgccga gaattgcccc 360  
gcgcgttggg ggagtttaag cgcgtgatga gagtgttggt tggggagcgt gtgtatgatg 420



tgaagcatat gatgaagttt tgtgaaanga gattgtttgg tggtttggga ccgggttgca 480  
aaggaccc 488

<210> 1120  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABL1-021-Q1-B1-H4  
  
<400> 1120

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agaagtcttt cgagatttta agggccgtcg agctggcatc atccaagctc tcaccactga 180  
tgtggaagat tttttccagc aatgcgaccc tgagaagcag aatctctgct tgtatggatt 240  
cccaaataaa gtgtgggaag ttaacttacc agctgaagaa gtgcctcctg agcttccccga 300  
acctgcactc ggcattaact ttgccaagag atgggatgca ggaaagaaac tggctttctc 360  
tcgttgctgt ccacagtgat gcgtgggttac tttctgtgtc ttttactttg gttcaagatt 420  
t 421

<210> 1121  
<211> 344  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-021-Q1-B1-H5  
  
<400> 1121

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cgccggtggt gtgaaatgca cggcgtttga aagcataaag cctttgatcg aactctccgg 120  
cggtgagtgg tggcaacagc ctgggattca gagcatgttc gagatcacgg attgcggttaa 180  
agacgggaat ttcattgagta cggttggttg gccaacgctt ggtcacggca ttaagctttt 240  
gcttgaatct cttggtggca aagtctgtag cttggagaag aagcaagctt ctgtgctttt 300  
cctcattggg gactatgtan aagattatgg gatnaatgta ccgt 344

<210> 1122  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-021-Q1-B1-H9

<400> 1122

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nnnnnnnnnn nnnnnnnnnnt gttcagaaga acaaacatgg ttctctcttc ttcgaacaag 180
aagattccgt cagttctcgt ttcaaccggt tgtttgatcg ccagaagcca attcatcatg 240
tcttaggcgg tggcaaatct gctgatgtgt tgttatggag gaacaaagaa agattccctg 300
caagtggttt tgatggggaa gcctaaccgc aattttgggg tggctttttg aatngggttaa 360
attttcaatt tctgtcccc ccggtttgcc aaagcccctc cttggcnttg ggaatgaatt 420
gcacaaattt cgttttggtc c 441
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<210> 1123  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-022-Q1-B1-A10

<400> 1123

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cttcgtttct tgtggtcgtc actggaacaa catcgattac tgggggttggg aacgaagaag 180
aaagagggtg agaagaagaa tggagaacaa gtgtaataga aagagtaatt gcagaggaaa 240
gtggagagaa ctcatctctg attttagctg caaagagaac aagaagaaaa gatcctgctg 300
ataatttcaa actctacact ggtggatgga atataagcaa ttccattat ttgacttctg 360
ttggttatac agcgggcgct ttcattataa tagcactagt ctggtttggtg ttctttgggc 420
tatcattgtc tctgatt 437
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<210> 1124  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-022-Q1-B1-A11

<400> 1124

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cctgcgacat tttgagagtg ttgtttgggt taggtgtctg gtgtattgct tatataactg 180
ttgcaatctt tgcgtctttt agaatctttc actgtatttg ttaatttcaa gagcttttgt 240
ggagagggtc tgcttgcttg ctacaatggg ttacgccag ctagttattg gtccagcagg 300
cagtggaaag tcaacttatt gtcgtctttt gtaggaacat tgtgaaacta tcggtcgaac 360
aatgcatgtt gttaancttg atcctgctgc ggagatcttc aactatcctg tggctaagga 420
tatcanagaa ctta 434
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<210> 1125  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-022-Q1-B1-A12

<400> 1125

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ctcgtgacgg tgcaggtttc ggtcccaacg acgctcaact ggatctctcc agaggaatcc 180
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acgcgagcgt gacacagtgt ctaggatcaa taggaggtca tgtttggtac cttggagtgg 300
ctaaaccgac acttattgaa gatggtgatg atggaaagat ggtagataaa ttgaaatcaa 360
ggtctggtca cttgtacgct cctcctgcgg ttgaagaaaa tcgcgtcttc aaggt 415
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<210> 1126  
 <211> 378

<212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-022-Q1-B1-A7  
 <400> 1126

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 atnaatgagt atcctttgat gttangttgt aatgtgcgta agaatttgat tcctgtcntg 180  
 gcttacttag ngaaaattgg aatctcgaga tcgaaattag gatantttgt taagaactat 240  
 cctcagggttc tacacgccag tgttgngtgt tgaaccttgc tcctgtgggt aagtttccn 300  
 agangacnng atntggagaa ncaagatttg gggtaaagtn ttgatgantt atcctgaacc 360  
 tgccaagggt ttaaanc 378

<210> 1127  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-022-Q1-B1-A8  
 <400> 1127

agtgaacat catcgcttc agatagtgcc gttgttccct ctgaagaaac gcaactttct 60  
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 ggtctgcatg atgatacacc tgatccgtta gcaatcctgg accaaaatgc actagctttg 180  
 gccttagttt ccaatgatgt tgattcttcg ccgtttagtt ttgggcaagc aagagatttg 240  
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 acagagagac agctggcggg tgggattaga cacgtcaac ctgaacagtc tatatgacga 360  
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 ggtccaaaga cctgttt 437

<210> 1128  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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 caaaatgttt tttaacagtt tgtcaccggt aaaaagaaag gagagcctcc gattttctta 180  
 ctccccaata cattcttcac caagaagttt ccatctcgac tcattcttct tgcctctgtt 240  
 ctccaacttc tccttaaggg ttcttgcata anagggggacc cgaacaattg attaagaaac 300  
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 aacctcctgg naactcttag cttaaagcct gcnaaaatgc cg 402

<210> 1129  
 <211> 380  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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 aatactaaca aaacgacatc gtcccattan cgcgaagcaa ttaagaactt tgtttcctcn 300  
 naagggggcac ttgcggctcc accgtggggg ttggtgagggc tagccgtaac cacngggcan 360  
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<210> 1130  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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 gacaacttca aggccgacta caagcagagc ctcaagacca agtacaaaat cgacatctag 180  
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 ggagatgttg tcgacggcgt ccttttttca cttctctcca aagcatgacc tgagcgttat 300  
 cgtttgagca ttttactttc gctgtcgctt acgcagatag aggtggatgt gcagaatgag 360  
 aggtccgatg gctttagttagt tacggcgtaa tgtctcatgt ttccttgctc aaatatttaa 420  
 gtcattcggc gtctctgggg tatcccgctc a 451

<210> 1131  
 <211> 162  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 agaacgtacg agagaaaaaa acatatcaga gagctgaagc tt 162

<210> 1132  
 <211> 377  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-020-Q1-B1-A12

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 tatactacaa tcagtgaaga agctgcatgg gttctgtaaa atggagaaat cagatgatct 180  
 tgtggctaga atttatccac aattcaataa agtcttccat cgttcggttg cttcactatc 240  
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tgattttggg gatatggttc tgcacgattc tgacccaagt ttgaggacat tcttccgctc 360  
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<210> 1133  
<211> 522  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-020-Q1-B1-A3  
  
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acattcatcc tctgctaaaa tggatgaaac taatggccgg gaggaaaaat cagagaagga 180  
actgaatgat gatgggtgaat atttgattag accttatctt gagcatcttg aaaagattcg 240  
gttcagatac aactgtgaga gagttgttga tctcgacaag catgatggaa tcttcttaat 300  
aggggaattc tgtctgtatg tgatagaaaa cttttacatt gacgaagatg ggtgtatttg 360  
tgagaaggaa tgcnaanatt aagttaccog ttaattgatn aaacnttggg tgtgaaaaaa 420  
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ttgaaaacaa ggaccanttg ggggaaaaan catgggcata tg 522

<210> 1134  
<211> 448  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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cttgattcca gtttatgaaa tagagcctct agagaaaatt accgatgcat atcttgatca 180  
atacttgtgg tacgaaggtg acaagcgtca cttgtttcca aactggatta agccagcaga 240  
ctcagagccg cccccacttc tggtttataa atgggtgtcaa ggtatcaaca atttgcaagg 300

catatgggac acaggtgatg ggcaatgttt tggatgatgcc ccaaactaag ttccaaaaag 360  
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 acatatttca aactaagtgt cccgccaa 448

<210> 1135  
 <211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-020-Q1-B1-A7  
 <400> 1135

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 ccttcagtac tcaccaaacc ttcgttgac tgcattggaa gcttgtgcac accccttctt 180  
 tgatgactta cgggatccaa atgtttcact gccaaatgga agagcactgc ctccattgtt 240  
 taacttcact gcccaagaac ttgcgggtgc atcaacagag ctgcgacagc gtctaattcc 300  
 aagcacattg ccaggggaacg ggaagtaant ccttaaggat tatttatnnc gtgtccaaaa 360  
 tccaagcttt cctnctcncc ctogaattta cggcagtggt taaac 405

<210> 1136  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 1136

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 gacaacaagg ggttggtgaa ttcttatggt ataacagatg tctacgaagt tgagcatttg 180  
 aagttttgtg gaatcttacg atcattgggc tttaaaaaga gagctgctgc gttccagcgg 240  
 gctttgtgta gagcaaagag ttttgccacg gaatgttttt gttgtcaaag tagtagtata 300  
 tccggttatg ggaaagtgac agatttagtt taattaagtt gaatccctta ttaagtcata 360



tgcattaagt taagtaaact taataanttg tgtgg

395

<210> 1137  
<211> 444  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-020-Q1-B1-B2  
  
<400> 1137

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agtgtcctga ctcgatccct gacccaaagg cgggtccagta cgtgcgtaac gaccgtggca 120  
cccccatggg gctagacaac aattactacc gtaacatcct agacaacaag ggtttgctcc 180  
ttgtggacca tcagctcgca cagcacaac gaaccagacc aatcgtaag aagatggcta 240  
aggaccaggc ctacttcttc aaggagttca ctaaggcaat ccaagattct aaccgagaaa 300  
aaaccctttg actgggtcct aaagggttaa gattaaggna ncaatgttat ctcccaaaca 360  
agaancaatt gaagttgna aaagttanaa anaaangggc ncngngtgt ttaanttccc 420  
ggcntgggac naaacaaaaa ttaa 444

<210> 1138  
<211> 444  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-020-Q1-B1-B3  
  
<400> 1138

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actaccgtgt cggcgataat ggattggaat cgaagaagga agctatcttc cctagctatg 120  
atttccaacc tatgcgcctt aatgcctccg ccggattgtc tcaccaacgt ttagatctcg 180  
ccggatctgt taattccacg gctgctaggg tttgggatgc gtctgaccc aaaccggttt 240  
cagcttcttc cgcaagaagt tatggctcta tggactctct cgaaccttca aagttgtttg 300  
ctgagaagga tcgaaattcc cccgagtcag cgattatata tgcgattgat nggacaatga 360  
aggccatgct gataaattgt tacatgttat ggggaagggg caatgcactc taacgcaact 420

ggagaacaan aacccgagat ttcg

444

<210> 1139  
<211> 425  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-020-Q1-B1-B8  
  
<400> 1139

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gcacagggca gccaaagacgg /aacaacttgt gtggagcgta tcaactcggc caaccgaatc 120  
ttcaacaaca ggctcatatc tatggtccaa caactaaaca acgctcattc cgatgctagt 180  
ttcacttaca tcaatgctta tggcgctttt caggatataa tcgccaatcc ctctgcttat 240  
gggtttacga atacgaacac tgcgtgtttg cggaattgga aggaacngga ggtcagctaa 300  
catgttaacc gggaagaacc cccgttgctt gaaccgaaat aattactttt tttgggatgc 360  
aattcaancc tttcggtgc tgcaaacacg ggcaattgca aaaagatttt acaatgcaca 420  
aaagn 425

<210> 1140  
<211> 433  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-020-Q1-B1-C1  
  
<400> 1140

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ggtttgggct gtgttgaaaa ttgagcttan ggttttatgt aacagttgtc ttagctcata 120  
gttacggtta aaaagctctc aactttgtct ccctaattgat aattgaattc aatcttgttt 180  
atgatttttc tctattgggt cgatctttan ctgaatctat ctacataaag atncaaccgt 240  
tttaagaatc ttagggttcc taacatcttg ttcaaaaacta agattctggt ttttgngtg 300  
gganatnatt taanatatgg nantactca agaanacata tnantcaaag aaggatctca 360  
aaaggtttac caacaacaat cttcaagtcc aaacaaangg gacccttccg gncaaacatt 420

tgantcccta acg

433

<210> 1141  
<211> 403  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-020-Q1-B1-C11  
  
<400> 1141

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ttcaattaaa agacgtcacg atccgaaacc ctatcttctc atcatcgatc cctgagaaat 180  
catcgctggt ttctaggaaa ctttgtgaat tggagtttag gtttctcaat cgtaagggtt 240  
ctgctttctc gtatcgttcc ttggttggtc gagctacctc gaagaagagt aacgangatt 300  
cttctttctc tgggagatgc ttctcaggaa aacaaacctt ctaacggnaa caagtccggc 360  
gattccgagg ctccgaaatc gttcgggtta aaaaacggat tgg 403

<210> 1142  
<211> 451  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-020-Q1-B1-C2  
  
<400> 1142

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atcggttttg ataagcttcc ccgatcatca tgctanntna gatttccaag aagagctcan 120  
caactcgccc ttattatcaa gtttaaagga aaaatcctta gnacgctctt acacagaagt 180  
attgctcgta cctttgacaa ccctgattt tagcatgcct tacaacgtaa tcacgatcac 240  
atgcaccatc ttgcattgt attttggatc antgctaaat gttctacgta gacgaattgg 300  
tgaanangaa aaggtttctc aaaagcaaag gaaanaaaac aaggtgggct taancantta 360  
taacaaaaaa ccnagccaa gatttaaang ganaacaatt tgaggcccca tnatcatcag 420  
aagctgaaat cttcgggcn tgtccaataa a 451

<210> 1143  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-020-Q1-B1-C4  
  
 <400> 1143

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ttttaacggc gttgccnat ccaccacgt gcgagttaca atcgccaat cctccacgt 120
ctataacgat actcctgcc ctataggaca aagcggagaa gtatattgtg gaggcggcaa 180
gcaaggganc anagctagtg ttgttcccg aggggtttat cgggtggctat cctcnaggtt 240
ttaggttcgg tttancggtt ggcgttcata aacgaagaaa ggcgtgatga atttcggaag 300
tnccatgcct tctgctatca atgtncctgg nccctgnant aacaagattt gccgaacttg 360
gcnaggaaaa aaccaagttt tccttggaaa attggaagcc atntgagaaa ggnaagggtta 420
aaccctcnaa ttgcacaa 438
  
```

<210> 1144  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-E1-D3  
  
 <400> 1144

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caagaaagtt gagaacaaaa caaatattaa nactcaggga caagtattct agtcatcatc 120
atatcacagt gacacaacat acacacttca gaacaaaggg taccattaaa gatcacaaaa 180
tctaataaaa acagaaccaa cagtacgtct caggtatcca aagcgagatt ttcagcttgc 240
ctctcaagcc gaagagccac aacaggaaat gtgttgacga tcattactcg tatttctctt 300
gagaatctcc aaatattaag ttcgtcttcc gcccttctg tatgtactcc gtatttatag 360
gcaaacgtta catagcctgg ctcaatgggtg aacaaaaatt gagttcccac cc 412
  
```

<210> 1145

<211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-E1-D8

<400> 1145

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tcaaccttgt cacacacgct tctanttacg cgntcantec cggttaacac tttgtaagac  120
gacaatttta caaacgcgga agagaaggcg ttgaagaaac ggtcttgatc agctctcgag  180
ccgaattccg agcttacgta cgcgtgcatg cgacgtcata gctcttctat antgtcacct  240
aaattcaatt cactggtccc tctgtttaca acgtcggtga ctggggaaaa cctggcggtg  300
ccaannttaa atccgcnttg catcacaatc ccccttttcg ncnagcntgg ngtaataagc  360
naaatagggc ccgcaaccgg atnggccctt ccnaaaaag ttgcgcaacc tgaaatgggg  420
n                                                                 421

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<210> 1146  
 <211> 495  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-E1-D11

<400> 1146

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ccttctcgaa tataacagtt taagggtttt ttctttgtga ttgcancact aagngccctg  180
tggcacannn agaaggacaa aaaagacttt aagagccaaa agaaaaaacc aattcaagaa  240
gaaaataatt cattacaaaa ccataataaa catccatttt ctccatcttt tttttccagg  300
atttaatgat gaaaaccccc acagaagaca aggttgcaat canactctgt gacactatta  360
catgacagag aaagaaacat anccttcaag aatcaaagca gctcananga aagcgtcctt  420
ccaagtaat ttcaccacat ctagctgaat tgtttaacct gggccacatc aatgggattt  480
taattgtcca tgttt                                                                 495

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<210> 1147  
 <211> 400  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-E1-D9  
  
 <400> 1147

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tagcaaagta ttttacacac atataattaa ttactctcng agcatttgta atcattaact   120
tgaacaagtg aaattcaaga agatgattcc ttgaactcct gcaactgttt gaagtccatc   180
catggcttca cccacacttt ggcttcaaaa ttcttagtct gatcaccttc ttttgcttct   240
agggttaagt ggtacatcgt tcttgcaact acctgctccc ttgctttgac aatcctcctg   300
aactcaagaa ntttgggccg ttgtttgtta angtcctga atgggaaatc nanccgagac   360
tcnncattct ctccaactgg tcttganttc ctccggaaga                          400
  
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<210> 1148  
 <211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-E1-E3  
  
 <400> 1148

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nnnnnnnnnn nnnnnnacag ccgaagaagn agagtngaag angnatgttt aagattcanc   120
cttacacaag tgtagcanaa gcaaaaaaga aaggctatca acgaatggga actttgatcc   180
aaccattggc aaaagcaatg gctaagatga cgaatggcgt tgacataccg aagatgataa   240
tgtaaggaag aggcgctctc ancggtattct ctcttctctt ttctccaacg ctttgccaat   300
acctataaag ttgtaatgca aatctcatcc ataaccattt cgtcagtcac aatattgcat   360
gtttangaaa aatgtgcatn caagagttta aagatccttt gacaactta                          409
  
```

<210> 1149  
 <211> 411  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-02-Q1-E1-E5

<400> 1149

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gatataatgt tccaatttat tgaattaaaa gnactgngaa aataagactg ggaatgtttt 120  
aaacgatccg acacgagaat aatttttagtt tcatattaag acaatcatca cttgagggttc 180  
cttctagtaa acgataactg atggagttaa gagacgagat ataagaagag gtacagaggc 240  
aggtccttcc tcgcccata caggctggaa cagatccaac tcaccatacc gctccagaac 300  
tccgcatacct acaatcttca nctgccatca atccaagttg aataancgcc gtgaacccga 360  
accccgaggaa actcnagctc gtcgcttcaa ccgggaaaag aataanttaa c 411

<210> 1150

<211> 469

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-02-Q1-E1-E8

<400> 1150

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acaaataatt ccaattcata tatgaacatt tttgcctcct tatttcttga aaatgtggaa 120  
ttggaattcc ccgaggaatt ccgatctcat ttcggttggn gtcaggatag gcctaataag 180  
aaaacaaata attccaattc atatatgaac atttttgcct ccttatttct tgaaaatgtg 240  
gaattggaat tccccgagga attccgatct catttccttt ggnttcagga taggcctaata 300  
aagaaaacaa ataattccaa ttcatatatg aacatTTTTg cctccttatt tcttgaaaat 360  
gtggaattgg aattccccga ggggatcctc tagagtcgac ctgcaggcat gcaagcttgt 420  
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<210> 1151

<211> 401

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-E1-E9  
  
 <400> 1151  
  
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 aaaaattaaa aggccatgat acanaagata taggcaangt ttcttttgcc ttctcataca 120  
 agaaaatata atataagcaa aggcccatct gcctatataa aaccctaact ctgtaataa 180  
 aaactctgtt tttttcacct tctcgtttca ataaaatcca acacacacca nagacagttt 240  
 aaggaaaata naagaagacc acacgatgca ttttcttgta atangattgg gtgancatc 300  
 tatggtttac gaacgcttat aaagcttgac atcatcgatc acaggccac acaatgacga 360  
 gaaatcatcg ctctcatgg catanaaagt gctgtagaac a 401

<210> 1152  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-E1-F1  
  
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 tatgacaaga aattgaggat gatctcttaa gaaaaangcn aanggtaaat acacatttct 120  
 cttgttgatga cacaaaaagg aaagagaana cctcatcaag ganantgaga agatgtactc 180  
 aagattaaac tcataattaa nccacacttg aagcaattgg aactacgggt gctactcatt 240  
 cttagcttc ctngaccct tccgtctcat cttcatcgtc ancttcttcc tccaccgcat 300  
 caacancgta cctcgcatc aagaactcca caagccgcag gagtcagaac aagcttatca 360  
 gcgttcaaaa tatcanacaa gattcaattg tccctaaggc gttaacatcc cnaaagg 417

<210> 1153  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-E1-F4  
  
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 anatatgaag atttcacaat gcatcaaaag ctttttatct acattatata attactccct 180  
 canaagcttc cttagtagac ttcaanattc cactgttnac tcctcttcaa ttgcttcttg 240  
 tactccaacc aatcgatccc atcttttagca gcaancgaga ccataangtc atcgataccc 300  
 ttcnccatac ccttaagacc acacatgtaa acaaaggtgt tgtctttctt cagcaactcc 360  
 cacagctctt ctgcaanact ccgccattcc tggccgaatg tacattttcc 410

<210> 1154  
 <211> 403  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-E1-F5  
 <400> 1154

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 ccagctacat gattcatatc aagaccaatg cgggattaag gatcangttt accggcgatt 180  
 gcaacatcat cttcatcatc accatccgag gcatattcat cttcactcat ttcatcatca 240  
 ctagacattt cctcagtatc cgcccttggc tttgcgtant tctcacaata ctctttaact 300  
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 atctgacgga ttccgataca gaagaanttg cgggaagaaa tgt 403

<210> 1155  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-E1-F7  
 <400> 1155

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 gtcatacaaa tcatagtttt tatanatatg ngttccngng caaatttate gatatttccg 120

gttcaacatg aaccggttgag taagcaaaac aaacctagta ctcaaaccce agaaagaaaa 180  
 cccctcaaca caccccacaaa aagtagtatt aagaaagcaa ccaatcttct gaaaaaccgg 240  
 ttatagatta nacggttgta ntagatttcc ggacagtgtg acggtaagca gcaactttct 300  
 tcttgcgaga ganagtattg tcaacagaga ngaatgaact tccancttc nacngtanng 360  
 aaagattgca aacagcntca accgtagcct ttnacctcct ccggtt 406

<210> 1156  
 <211> 383  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 ttaatcaaga aaactattgg aaatttaatc tttttttatt tttttctaac tactagcggtt 180  
 cattcaagaa ggcttggact tgacttagct agaggttagcg tttgagagca acagcttagc 240  
 tcccttgaca agctcttctt tgatcatgaa cagaaccgca gcanctaaaa cgctctgcac 300  
 aatctttgtg ctcatccctt tataaaaacc ccgtaaagcc ttcataatga atcatttcag 360  
 aatcgcgctc aangttcctt tgt 383

<210> 1157  
 <211> 399  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-E1-F9

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 ccatcttacg gcttacgagc actgaggagc ttaacatcat cgatcacggg cccacacagt 180  
 gatgagaaat catcgcttct catcgagtaa aatgtgctgt aaaacataac tcttgtgcgg 240

gtcgaaccg ccacaaaccg tanagaangc gcgtttgnac ctcccttttg ctcgagaact 300  
catnagggtta cntttanaag tgtcttttcc gcaaaatgcn tcgaccacaa ncgatccttt 360  
ggnaagcatt gttagcatct ccaaaccgca aagnaanaag 399

<210> 1158  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-02-Q1-E1-G1  
<400> 1158

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caaatttgca aanctcatat cgagtaggag ttttaagaac aatgactaac aataacaaaa 180  
agaaaaaana gttttggaag agttatggca atacacaaga gttctcntcc ctctactgta 240  
atgactttta aagagagatt tgtgaagaca aaacananga tgagtcatga tgggggttgg 300  
tttcggtaaa tgtttgagtt gttgtgcaac nccaactaca caggtgtagt nnatgtcctg 360  
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<210> 1159  
<211> 409  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-02-Q1-E1-G4  
<400> 1159

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gatagtaact agacaaatgt ataactgtac aacatttgtc gtttttggtta tcatcgatag 180  
ttttcgtagc ttcttgtagc gtttagattta cagagtctgg ttgaagatag catcttgagc 240  
ccctcagcgg tggatagcga tcatgactgg aacaagggtta tagtggctat atgaccgttc 300  
ttcatcacct caaaagcaac attctgatag ccatacacat atgtagatcc aaaagggttg 360

ctcgttgaac cttgcgtctg aataactgct gggccanaat ccccgaagt

409

<210> 1160

<211> 413

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-02-Q1-B1-F3

<400> 1160

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ggcattgggc tggctactgg cattcactat tctactgac agtggggaag gcaataatgc 120

catctgcaag gagaatttta agttagaccc tagacctcat agtgtttcga tcctcgagtt 180

tggagcgggt ggtgatggga agacgctcaa cactattgct ttccagaacg ctgttttcta 240

tctcaagtct tttgcggata aaggcgggtgc tcagctttat gttccaccag ggaaatggct 300

caccggaagc ttcaatctca caagccatct cactctcttc ctgggagaaa ggagcaacaa 360

ttctgcate aaccgggatn cgtcgcantg ggaacttggc aatcctctaa cgt 413

<210> 1161

<211> 416

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-02-Q1-B1-F5

<400> 1161

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tgagtgacta caaggtggag atgatcaatg atggcatgca agagttcttt gtcgaattca 120

gtggacccaa agacagtata tatgagggag gtgtgtggaa gataagagtt gaacttcctg 180

atgcttatcc ttataaatct ccatctgttg gtttcattac caaaatatac caccctaattg 240

tcgatgaaat gtcaggttct gtttgtctag atgttattaa ccaagacctg ggagcccgat 300

gttcgacctg ggtgaatgtg ttcgagacat ttcttccgca acttcttctg tatccgaatc 360

ccgtcagatt cattgaatgg gtgaacaact gcattgatga tgcttgatcg tccna 416

<210> 1162  
 <211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-B1-F6  
  
 <400> 1162  
  
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 tagcttatgt cacacttttg tatggagatg agttcttatt aggagttagg gtattgggta 180  
 aatcgattcg tgacactgga tccactaagg atatggtcgc tttggtttct gatgggtgtct 240  
 cagactactc taagaagtta ctcaaggctg atggatggaa agtagagaag attagtttac 300  
 tggcaaatcc aaatcaaggt tcatccgact aagttccggg gtgttatata aagcttaaga 360  
 tcttaacatg actgattata agaaagttgt gtaccttgat gctgatacn 409

<210> 1163  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 1163  
  
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 ccaaattcgc tatctttctt ctcatcttct ctctttttat cctcctctca ccaaattcct 120  
 aaaacctaca tttccgtttc aaaactcggc tccggcagag tctcgaagcc gctttctgtc 180  
 tcttcccagc tagcgactct accgattcta tcattcgaag gagagaaggt cggagagacg 240  
 tatctagacc tcaaagcggc gccggaggat accgcgcgtg cgttgtgcac cgaaccatcg 300  
 tgacggacct gaataacaag cggcgaggta ctggcttcaa aatgactcnc ggtgaaattt 360  
 nttggtggtg ggaattaaan cntactcaca gaagaaaaat gggcaacgcg angg 414

<210> 1164  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-02-Q1-B1-F9

<400> 1164

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gttaccaaac ggcgactttg aactaggacc aaaaccatcg gacatgaaag gaacgcaagt 180  
aataaacaag aaggcgattc ctagctggga gctttcaggc ttcgtcgaat acataaagtc 240  
cgggtcaaaaa caaggagaca tgcttctcgt agtcccggcc ggaaagtctg caatccggct 300  
aggcaacgag gnacgatta aacaaaagac ttaacgttac aaaaggaatg ttttactcac 360  
tggacgttca agtngccgca agggacatgt tgcccaaaga cgaaacggnt caaacatata 420  
gg 422

<210> 1165  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-02-Q1-B1-G11

<400> 1165

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ttgctgccat gtttcatttg cttcaaccct caagatcctt aattttgtcc aagctttcat 120  
tggtgtttcg atcattatct actccatatg gatgtccat gaatacagcc gtcaccttcc 180  
cgtggaccgg cctccgtcag cttcatcaag ctccggaacc gagatcgcta ctaagtgtat 240  
ctgagccctt gaagaatcct attgattttg tggcgaagta tcattctcgg gtctaattgg 300  
ggtgatnatg ggtttaacct acgccccgtt ggaccttcct gctccaaggn tcaactactc 360  
cttcatgggc ggttggtata atggtctgca attggtacct tcaantgggt tcaat 415

<210> 1166  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-02-Q1-B1-G4

<400> 1166

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atatatgaca actcaagtga caaaaaagtt ggtgtcggaa aattgatgga tagagcttct 120  
gttcctcctc tacctcctgg cagtctgtat atggaagaag ttcattgtcaa gcctggcaag 180  
gaactatact ttactgttgg aggccagcat atgccttttg gtgcatcacc acaggatgta 240  
tggaactgaat taggtcgacc ttgtgggatc caccctaaagc aggtagatca aatgggttatt 300  
cattctgcgt cagatnctcg accaaaaaca actatctgtg gtgattactt ttacaactaa 360  
tttactcgtg gtttgggaca tcctgtttga tggcnagact ccacaaagtt aaa 413

<210> 1167

<211> 170

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-02-Q1-B1-G5

<400> 1167

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gtaactgttg tttcattttc tttcaccgaa tttcaccagt gagaatttct tccattttcg 120  
aaaaagaaat aaaaatgaaa ttctgttttg ggctaaaaaa aaaaaaaaaa 170

<210> 1168

<211> 423

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-02-Q1-B1-G9

<400> 1168

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gcctaccagc acaggagcag ccaaggcggg gtcattagtg ttgccgcagc tgaagggtaa 180  
acttaacggc attgcactcc gtgtgccaac accaaacgtc tcagtgggtg accttgttat 240  
aaacgttgag aagaaagggt tgacagcaga ggatgtgaac gaggccttta gaaaagccgc 300

taatgggacc gatgaaaggc attttaaacg tttgcgatgc gcctcctgtc tctgttgact 360  
 tcangtgctc cgatgtctcc taacaacaat ngactcgtcc cctcaactaa tgggnnttatg 420  
 ggt 423

<210> 1169  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-02-Q1-B1-H10  
 <400> 1169

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 cgatatgatg ttatcaaaca gaggatcgag gagatgggtc taccaatgga gccatatgag 180  
 tggtagctag acttgcgtcg ttatggaaca gtgaagcatt gtggatttgg acttggtctc 240  
 gaacgtatga ttcagtctgc tacaggaatt gataacatca gagatgttat tcctttccct 300  
 cgtatctctg gaaaagctga tctctgatcc ctcctctaga cacacaattc tgggtctgggt 360  
 ctgcacatgg gtttagtttc cttttaaatt gggtaaaatg aaaaattgta attgg 415

<210> 1170  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-B1-H4  
 <400> 1170

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 caacctgtct tcagctgcaa attcagctcc gatcgtaacg gaagatctcg gtctctacca 120  
 tcaggattta catatagtag tagaggatgg attacaagaa cattatcagg tgaccagtgg 180  
 gaaaagaaac aagcgagaga acgtaaaggt tggatgataa cgatccatga tctttcggga 240  
 tcacctgtag cagcaagctt caatgatcac tcctttcgtg gcctctccag ggtctgatcg 300  
 tgtttcnaga ttaaaccctg gtgcgtggct aaaccttaag gcctcaatgg gacnttgtgt 360



caagttagtt tgggaaaacg ntggggactc cttgaaggct ttggcnttga gaagaaggag 420  
ctaattgatt 430

<210> 1171  
<211> 496  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-02-Q1-E1-A12  
  
<400> 1171

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tcgacgagct cantagtcgg cgcccgccct tttttttttt tttttttacc ccataaagag 120  
agtgaataga aggagccact tttttttcca ctgtaattta gaaaatgaag tgtntaaatg 180  
tccttcaann gtaagtaaataaatccgaaa catataaaat gcggttaatc ccgctgttga 240  
acaagctatt attgcaaaaa ttggcgaaaa taacaaacta tcattaagaa tttcatcttt 300  
cgaccaaaaa caagcaaggg gggggatacc acaaagagag agtggtccta ttaaaaaggg 360  
cgtttttgta atcgggacat gttttgtcaa accaccata agaatcatat tcttgacttt 420  
tatcgggaga aatatccaac tataacttcc attggaatga ataatgggat ccagattcct 480  
aaaaaacaac aaagct 496

<210> 1172  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-02-Q1-E1-A2  
  
<400> 1172

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gcgtgaacaa aaaatatatt gaatccccct cttccgggtt ccttcttgtg ttcactantt 120  
canaaatgaa tagatcaana taaatagtcg ccatnatcat cagcaataaa agaatggnat 180  
caaangtctc gangcanctt cctaacttgc tccaacgtaa cgaaggagaa caacagtgaa 240  
aggaccttgc ctacaaactg taggaacaaa gcctttataa agagccatgg ctccttccgc 300

tttaaccgtc ttcaccgcac aatcccacgc gccgtcg tan gctcccacct tcatattcat 360  
 cactcncgtc tttacacatc caccgggatt agacgcaacc gaagcaaaca a 411

<210> 1173  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-E1-A3  
 <400> 1173

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 atcataatag caaagtgaca taaaagccac tctgaactca aagctcacac taacacacaa 180  
 cctagaaagg caatttatat atttgtggcg aaggaaaggc cttccttaga tagcacttca 240  
 aggnctctcaa cagaaggttg tgctcgtgca agtttagcaa ttgcattgtt ctcttcagga 300  
 cttccacctt ctaaaaatgc tccaaccact ttccgttctt taatccaagt agctcccgaa 360  
 tttcggcttt ggcgatccg ggtcaatgtc cccaacaaa aagcctttnc ca 412

<210> 1174  
 <211> 492  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-02-Q1-E1-B10  
 <400> 1174

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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn gnnctctnca gcattagctt 180  
 atnngnacta ttcactantt tgaattcact ctctattca gtcagtactc aggcatctat 240  
 tatctatata caacttgaat ctgtgattga gaaaaagaaa gaagtagcaa gtgaccatta 300  
 atcatagggtg gcgatgaacg gaatgaccat caacatgaag acatcgtaag agagcgttgc 360  
 gtagcctgtg taaccagggt cgttctccct gaaattcncc ggcaaaccct tcaaaaatca 420

atccaaactc caaggaaact gtcnnaaaca taagggtcaac aagttttgcc aantcccatc 480  
atcaaacctg aa 492

<210> 1175  
<211> 400  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-02-Q1-E1-C7  
  
<400> 1175

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tgacctgatac ggtttggttt acgagagtgn ggngagnna cttacttact tcttgagac 120  
ataagcaaag tattgtgcca tgggaactac aaaggcaatt acaagtaatc ctccaacgac 180  
aagactgaac tgtcctcgct tctcatcggt ttcttcttgc gtcttgaaat ttgattctct 240  
cttgctatcc ttacggttg gacccccggg atctggttga cgtctatag ctgcaancan 300  
ncttttcgca ctgctatata ccgcctcngt tgtatttttc cgtcngttgc tantacgggg 360  
aagaatttcg gaaanggtan catcaanaat gttttcacca 400

<210> 1176  
<211> 437  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-01-Q1-E1-D5  
  
<400> 1176

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tccctcccaa tcgtctcata ctaaannatc ccagacacca gnaatttggt tcttnnnnnn 120  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnttan ccttagtgca 180  
gcaacccaaa aaaaagacaa cctaagtagg aggggtggtt cggatattta agacattacc 240  
cttcttcagg taaacaaaag gcctcttctt gttttcttcc ccaacccaac actttttacc 300  
ttactaactc ctgaaagatt actgttgctg cttcttccgt tgantcntcn cgggtnactg 360  
gncaangctt tggctctggg gcanancaat aaanctgtta annaananac cntttccggg 420

gnaaaacaag gactttg

437

<210> 1177  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-01-Q1-E1-F1  
  
<400> 1177

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aatgattaa caaagattaa ttaaattaat taattataaa tccctcaaaa angntctaaa 120  
ccatacaaaa ctccggcgtg tttctccgcc ccctcctcaa cgaaatacaa atccctcatc 180  
ctctgaaacg cctgccacgt cagcaaacta tccgaaccgg ctgatgaca tttccaacog 240  
cccggttaaa cttcaagaga accgagcaac ccgggtcaaaa ccaaccaatt acaatcctcc 300  
tggetcaaca aaaacctcat aatangtttc aacaatcaat aaaaccctaa tcaaccgaaa 360  
naaaagctcc taagcaaacc tnaaaaaact naacgccaan ggcaaccggg aaagcngccg 420  
ggggcc 426

<210> 1178  
<211> 420  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-01-Q1-E1-F2  
  
<400> 1178

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atgctacaaa gataataccc ccaagctatt ttagattagg agctgannac agagacacaa 120  
tactaacgat aaaagttcgt agtatcttta tgcaaccata catacatata cacaagata 180  
gacaggtagt gtcctaataa ttctacttgg gtgaggtatg aacagcagca acagtagata 240  
ccattgtatc cataccacac atattatgag gccctctgca aattttgtaa gtaaccatgc 300  
tctccccaca tcgctcccca cgaattcttg aaaaatccaa taaaggnntc cccttaaaac 360  
cggttggggc aataaccccg atgaaacaaa tccaaacaaa gaacaactcc aanggccttg 420

<210> 1179  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-01-Q1-E1-F8

<400> 1179

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aaacaaaaat cagtaatttt ccttttactc nggtcttgta aatgttatct accggtatat  120
ttcaattcag tactttttctt ttacaaaaat tataactatg accccatctt cctataattg  180
aagtatggaa ccctattgtc aataacaacc caaatcatca tcatttgact ctgttcttaa  240
ctctcattct gatgctgctt aagcaaataa gcctcatcgt gttcttcagc tccaaaacac  300
ttcaattcga tctcancttc ctcttcantg gagttgttgc atctctgact cgatnaagg  360
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<210> 1180  
 <211> 490  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 1180

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ggccgccctt tttttttttt tttttttacat ggaaccatac aataaaacat tacataagaa  120
aaatatctct ctccaacgat atgtatggaa gataataaag caaannggtc taaannaaga  180
ngnaataaac aagtgtataa tgatgaactc gaagaagact ataatagcat tgactcttga  240
ctagcaatca aaagtcaacg tcacacttgg tcggctgaaa aacaaacccg ctggttgaat  300
taagaggtaa gaggaacctt gagatcgac ttgatcttgg gcttgaacct ccacgacttg  360
atcaacccaa acttaaacct aatcttaagt ctcancttgg catcgattct atagatctga  420
gaattcacat cntcgtttca aatccttcct ctctccgccg tcaagcagca ncaaattgct  480
gtcccacgaa                                     490

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<210> 1181  
 <211> 432  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-01-Q1-E1-D4

<400> 1181

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ttaccgaaca gtaaaaatat tacaagacac tgaagacgnn ncncacccgt taaaagctaa 120
aaactaaccg agatgggtgga aatcaacggg cactaacaaa cacaacacgac atgaagcaaa 180
taaaagattg cacatatagc caaaatagac gaaacagaac ataaacacgt ggcgttaaaga 240
acataattat tttacatcat tctcatgtca ctctaccctc tcggctcaac ggtgcttgct 300
cctantgtcg tcgctgtata gccaatcgta nacgggtgga nagtttggtt gaagaagggt 360
tgtccaaaaa gtttgtgccc aatcctctan tgggcgaagt tacttctctg aatgaaacaa 420
acttcccan aa 432

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<210> 1182  
 <211> 344  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-01-Q1-E1-G7

<400> 1182

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tcagctacag aacaaatgct atttgttttag ttgggttctc catacaaaag ttgaaaacca 180
ctgttctcta ctttgcaata atagacttca tcaccgacta gctttcacag aaactttcac 240
catatccaga cccccaagat gataatccaa ggaagtannn gctgctcaaa acaaacggaa 300
atggnacctc tgccttgcca tctccttggg gtgacaaana aaga 344

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<210> 1183  
 <211> 436  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-01-Q1-E1-H6

<400> 1183

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actgacaaag gttctcatat ttgtgnnaaa tngngagttt tcacaaagct atatcacata 120

aaccattcaa aatcactgct tataacagaa ttactaccg agcaagcttc tcaattctta 180

gactttttcg caggtagctc ancggtttgt gcagggtgtg cagcggngang tangtctctt 240

ccaggaccct tggcaagacg ctctctctgt cgagcatgtn tcctctctcg gctagccttg 300

ttctnaacct tcttancctc aaactgggtc anacaatgtc ntctctccaa ccttctcaac 360

ccttgggatt tggngaatac ntttcaatcn ggaanaagcc ttgntcnntg aaaaacgttt 420

cccngtggac tttaaa 436

<210> 1184

<211> 410

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-01-Q1-E1-H8

<400> 1184

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nnnnnnnnnn nnnnnnnnnt aaattatgaa aggatccant gacggttcca aatcattcca 120

atcaaacaaa aancagagtt taaacgataa caaagcaaag gaatgaaaca gaggtttaaac 180

gataacacag agtacgtant tggtttttccg cttaaactggc gaattcagga acaagagatn 240

ttaagcacgt tttaaaacta ccatgaanga taacaaccan agctaatacca aacagagAAC 300

gagggtcatt gaacaacgtc tgcttcttgt cttttccatc ttctngtaact ggattctaac 360

ccaannaagt cnccaaanta ggaanataaa ttttccancc aacggaaaaa 410

<210> 1185

<211> 403

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-A1

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 cacaactata tatccagggg gactgggcat tatcttactt gcaaggaacc agattaccag 180  
 caaaatcttt ggaatgtgat atctgtgctt atggcggaata aaaatattga tgacagtgc 240  
 ctcgagccag ctccgaagct attagggata gtgcttcaga catgcaaggg ccaangtgga 300  
 tcaatgggta gaaccctacc tgagaatcac acttgatcgg ctacgcggtg ctgaaaaatc 360  
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<210> 1186  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 1186

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 cgacctagcc ggggtcgaca gtacaacaat cgccgtactc ggtggaggat ccgtagcagc 180  
 actcgcgggc atggtttcct taacggatcc ggagaggagg cggaattgc aggcggagga 240  
 agttggcgga ggcgataagg aggttgtgag ggagtatttc aatagcacgg ggttcgagag 300  
 gtggaggaag atctacggtg agactgatga agtgaatcca gtacagaagg atattcgact 360  
 cggatcatgct aagacngtgg agaacacgat gcctatgccg actgaagata aattcttggg 420  
 nggtgtca 428

<210> 1187  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-A9



<400> 1187

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gatgggtcag gcctttttca gctgaaactg gagataccgt ggaagcagtt gtgcctcata 120

tgggggaatc aattactgat ggcaccttgg ccacctttct gaagaaacct ggtgagagag 180

tccaggctga tgaggctatt gcacaaattg aaactgataa ggtgacaata gatattgcta 240

gcccagcaag tgggtgaatc caagagtttc tagtcaacga aggagatact gtagaaccag 300

gaaccaaggt cgctattata tcaaagtctg aggatactgc atctcaggtt accccctctc 360

agaagatacc agagacaact gataccaaac cttctcctcc tgctgaagat aaacanaaac 420

ccacagtgga aantgctc 438

<210> 1188

<211> 416

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-019-Q1-B1-B1

<400> 1188

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gccgcgtcgg agccttccaa ggctgctgct cannnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 120

nnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnncaccgg tgccgcgcga 180

accaccatgc cagcggaatc caatccttac gtttctcctt cccctgcccc aaggaatacn 240

atggattcgg tgaaggatac gttanggaaa tgggggaaaa tggtgcccga cgccaccaag 300

aaggcggagg atntcgccgg aaatttttgg cagcacttga aaacaggccc aagtgtanca 360

gatgctgctg tttcacgaat tgctcanggg acaaaaatac ttgcagangg tggata 416

<210> 1189

<211> 444

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-019-Q1-B1-B10

<400> 1189

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 ggctgtgacg ggaagagaga acggagttgt agccggactc gccggttggtg gactgatcaa 180  
 atccggttgtt tcggtttctt gtattttgat gcaagatttc aagacggctc attacacgat 240  
 gacgtcacct aaggctatgt ttgctagcca aatgattgga acggtcggtg gatgcatcgt 300  
 gacgccgtta agtttccttt tgttctacaa agcgttcgac attggaaaac ctaacggaga 360  
 aatcaangnt ccctaancct gaattacaan aaatatggca atccttgggt caaagnnttc 420  
 ctggccngcc tcttaaagtc tcca 444

<210> 1190  
 <211> 439  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 1190

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 gcatcttcaa aganacctaa nagaaganat gacgtcatca agaaacagag ctcttttcaa 180  
 aggactatcg atacttgatg atgagcaatc caagttccaa cactttgtca gaagatctat 240  
 cgatttcttt ggccggatca gatcttcattg tgtttaccct agcggagctt anagtcatta 300  
 nacagagctt ttcacgcacc aanttttcga cgtgaaagtg ggtttggtcc tgtncataa 360  
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 cctgatttga aagncttca 439

<210> 1191  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-019-Q1-B1-B4  
 <400> 1191

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 accatgttag ccgtcacctc cgccttgatt tocatcttcg ctcttccctt aagaaactgc 180  
 agcatttttc tgatgatgca agaatagaagt ttgcaagata ccaaagagta tttgtattca 240  
 atgggggctaa ttttctcaag tctagagttg atatccgggt gtcccaatct tcgccatttg 300  
 tatgtttctt taatgggtga gagagtanat taaaccctan anggtggtga ggaaggatca 360  
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 cct 423

<210> 1192  
 <211> 135  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-01-Q1-B2-F5  
 <400> 1192

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 nnnnnnnnnn nnnnn 135

<210> 1193  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABL1-01-Q1-B2-F8  
 <400> 1193

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 ggagtttaca aagaagttgg agatgctcta cacgtggatc ccacagctct tggaacatta 180  
 actctgttcc gctctattgt tcagtcttct tgttaccctt tagccgctta cttgtcttct 240  
 agacataacc gagctcacgt catcgctctc ggtgctttcc tctggggccac tgccactttc 300

ctcgtcgccg tctccactac tttcttccag gtgggcagta tcaagaaggc ttgaacggga 360  
tagggctaac cattgtgaca cccgcgattc agtccctaata cgctggactc aac 413

<210> 1194  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-01-Q1-B2-G3  
  
<400> 1194

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gaagctggaa actgcatata aacgttcagg ggggagaaaa gtcactatca tctcccattc 120  
aatgggagga cttatggttt catgtttcat gtatctccat ccggaggcat tttccaagta 180  
tgtaaataaa tggattacaa ttgcaacacc tttccaagga gcaccagggt gcatcaatga 240  
ttcaatcttg actggagtgc aatttgtgga aggggtagaa agtttctttt ttgtgtcacg 300  
ttggacgatg caccaactgt tggtcgaatg cccatctata tatgagatga tggcaaattc 360  
aagactttta gtggaaaaag caaccanaga ntccaatttt ggcgtaagaa atcctgaa 418

<210> 1195  
<211> 409  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-01-Q1-B2-H4  
  
<400> 1195

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tcctggagtt gttttcgatg ttgattattc tgttcgtcag gagcagtttc ggttcttcac 180  
tgaggcactt agagttaaca agttgaaggg ttatgtggat atgatggta ctgaagctga 240  
ggattacttc tctaaatggg gagagagtgg tgaagttgat attaaggttg agctagagag 300  
gctcatcatc ttgactgcaa gtagatgttt actgggtcna gaagttcgtg atcagctttt 360  
tgatgatgtc tctgctttgt tccatgacct tgacaatgga atgcntcca 409

<210> 1196  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-01-Q1-B2-F1

<400> 1196

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 tttgacctaa tcagaggaat cgtcgaagat taccattca tctcaatgga tacagaattt 180  
 cccggcgtga tttacaaggc ggatctcgac gttctccgcc gtggaaacct taattatctc 240  
 tacaatcttc tcaaatccaa cggtgacgct ttaagtttga tccaagtcgg tcttactctc 300  
 tccgagcccg acggaaacct ccagatctc ggcggtcaaa aaaaccgtcg atacatctgg 360  
 gaattcaatt tccgttactc gaanttgaac gtgattcaaa agctccctga tccatt 416

<210> 1197  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-01-Q1-B2-H8

<400> 1197

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 cgaagggtgc tggaatcgga gttggtaaag gaggattcaa gggatttgga tttcctccgg 180  
 cgactgagca gtttcgtgtt aaaaccgcgg cggtgcggc gtcgtctaaa ccggtttcgg 240  
 cttcgattac atcggcggtt catccttctg ttgaagaaga tgggatgatt atgcagagac 300  
 cggtttgga tgattgggaa tttgctgaag aagaaccgat tcctanggtt gtttttagca 360  
 aacctcctaa tcttgaagaa nctaaagaag ctactgaaga tcttaaagaa gcaat 415

<210> 1198  
 <211> 421  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-01-Q1-E1-A11

<400> 1198

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accagcgaa aacaagatca gaaccgtgcg gtacaccgga aacacgaaca tcgccttcta  180
gaaccgacgc tagcaaggac gactcctatg tgggtacgac ctcgacatca aacttttggc  240
ttgagctagc gaaccccgcc gcaaataaac gccagaaca agcctaacct ggaacaatcc  300
tttcggaaaa ngggagaanc gccacaaccg agacccaatc cctcctctcc caaacctaac  360
aagacgaagg attcnaaaac ttacccccat ctccaactga tgcccaaccc aaggggcctc  420
t                                                                    421

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<210> 1199

<211> 414

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-01-Q1-E1-B10

<400> 1199

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aataactacg ctcatattgcc agggagccaa atactgcac agcttcagaa ttttcttagc  180
tcttccaagg tcaagtttct ggacttgacg catcaagaat gggttgtgaa aacgattcct  240
cgtagcttag gtagacacat agtcatggct tcaacgtatc acagctagtt tcattaactt  300
ctgcagactc atccagtttg ttaatgggct gggaaaacga ttgcaagaga gttttttgtg  360
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<210> 1200

<211> 450

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-01-Q1-E1-B2

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 gcattgtacg gttttgctca atagaacgca ttttatttac aagcaagaag cagagataaa 180  
 tagagagagt cagcagcgca aagagactcg ctcatataaaa tcaccangag taattaaaaac 240  
 ttatttgacg agatgctaaa tngggcggtg ggtttaagaa cggtgcttca acaattggag 300  
 aacaatacct ggncancnac cacaaatntt tacggncctt tncnaaat ttagaaaaa 360  
 caattttcaa ccnaantct ccnccaaca atttcttgaa tgatcaatta aggttcccc 420  
 cttnaacca acccgagcg ttaaacctnc 450

<210> 1201  
 <211> 433  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-01-Q1-E1-B3

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 gaagatgatc atttcttctt ctttggttct tttctgcat agttcttgat tagtgcttct 180  
 acntctttcc agaataaacc ctcaacaaga actccatctt tcgtgaacca ttgggtgaca 240  
 cttttgggtg agctgaactg acttcccagc tgagattgat ttggatnaac actgtccatg 300  
 gtgaagaagt gtacctgatn aaaaaatccg gggcaacttt tgaagatacc accaaaccaa 360  
 gtgctgggtg aaatgattcc tcaaggagga taaggtgaan aaaaatccna atcctcnccc 420  
 taagggtaca aaa 433

<210> 1202  
 <211> 492  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-01-Q1-E1-C3

<400> 1202

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 tatagacaaa caatgaaaca aacaccacca acaacaaaaa agtannactt tgnagagtnc 180  
 tttagactaa acatagatca caacactggg acggagattg agattgatat cggaactgag 240  
 acatccgttg taaaaccacc gtctctatct ccatttgtat tccctacaaa cccgtaaaccg 300  
 ccagaccgca tcgctgcatt ttcccgcctc tgaaaaaccc gagcaagcga agccgctttc 360  
 cgtctaaccg gctttgtccc cgtaaacaaa agcgtctgta ncaacccccg caatcgcagg 420  
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 cagcacanga tt 492

<210> 1203  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-01-Q1-E1-C6

<400> 1203

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 tcacaaatta aactcacttt ccggggacga agttggtanc gaaggcccat gcattgttgt 180  
 tgactggatc agccaagtgg tccgcgaggt tctccaacgg tccctttccg gtgacaatgg 240  
 cctgaacgaa gaatccaaac atagagaaca tanccaacct tccgttcttg agctccttca 300  
 gcttcaactc cgccaaagcc tcggggtcag taacnaagcc caatgggtcn aaactccac 360  
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<210> 1204  
 <211> 431  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
<223> Clone ID: ARABL1-01-Q1-E1-C7

<400> 1204

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acatctatac tgaaacaaaa acataaccog aatcatccaa ccgttcttcc acgggaagcc 180  
ggtttacata aacataccat gataccaaca tcctccactt gaaagaacac gggtggaact 240  
taacttttgt tggtcaccac ataaaacctt acataaccaa tcaatacaat aaacnaccgg 300  
aatatacttt taagaanttgt aattttacctc ctcggtcctc aatccaccaa anaataccan 360  
nagatngagc cnataaancc gggtgttccg ccggaantaa ctncnnngga nttaaacagg 420  
gcggggnttc a 431

<210> 1205  
<211> 480  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-01-Q1-E1-D10

<400> 1205

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nnnnacaaaa ggngccaaat tttcttttaa ataacnggt tanngcatta catgacanga 180  
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ccagttgttg agcggtcctt taccggttgc anccgcctga accgcaaac ccaagaatcc 360  
aaccatggct aaacgagcat gtttgatctc agctagctga agctgagcct tcttcaccgg 420  
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<210> 1206  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-01-Q1-E1-D11

<400> 1206

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tacattatta ataaatgctt gagagactaa atgaaaatga gaatttacag attcctcttt 180  
tgaaaaatca aaaagnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnngtgtat tancaatggg aagtgtcttt accagaggat gttgttgctg 300  
cttgtcttgt ttcanacaca gagantcttc nanatttccc tgttgatntt tccaataacct 360  
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<210> 1207  
<211> 438  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-01-Q1-E1-D3

<400> 1207

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acaatagttc ctcaactgtt aagtcggcaa ataatttctt aaatttgcat tgaccacata 180  
naaatggggtt ccaaaataat caacgctgaa tattccagaa aggggattaa ncttcgggtga 240  
aacttggggg cttgtaagca atgaaactga tncattggac ttnacgggtg ttgtcnaatc 300  
cgatgattct aattaangcg ccaaggtact ccttcctgca atcctcaaac ttccttcaaa 360  
acttgancgg aattcgggtgc atccgaaaca attggaacct ccacattgtc aagtatccgc 420  
caacccaaaat aanccggg 438

<210> 1208  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-01-Q1-B2-A5

<400> 1208

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gagaacggaa acccaagcat aacggcgaaa ggatcgagca gagaactaag acttgggaaga 180  
accgctcaca acatgtcttc ttcttctttg aggaaaaaat cagacctccg agtgattcag 240  
aaggttccat acaaaggtct taaagatttt ctctctaata tccaagaagt cattctcgga 300  
acaaagcttg ccattctttt tccggccatt cctgccgcca ttatttgcac ctattgtggc 360  
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<210> 1209

<211> 409

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-01-Q1-B2-A8

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gatggagatg acgcaggaga ttttggtcgt tttctgttag aagggtgattt cggtggttagc 180  
gacggtccat ttggatttnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnngagggat aattgggatg ggtcttcggt ttcgtcttgg 300  
tcagatccag cgatggaatt tgtgtatgaa gtgatttgct ggatcgcggt gtctaattgt 360  
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<210> 1210

<211> 412

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-01-Q1-B2-B5

<400> 1210

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 gctatcactg caacaaacgc gtcgtcggtg aaaccttaga tgactttgtc gtgtgctgcg 180  
 aatgtaacaa aggtttcgtc gagtcaattc aaccgactcc cgccgcttat tcatcgccgg 240  
 cgccaccgca gccactttcc ccagatctga atgtagaaga ctccagtatt ggctcgcat 300  
 tcctccaaga tgctccgctt gttagccac gcgccttctc ancgttcacc accacgacac 360  
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<210> 1211  
 <211> 378  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 aaagttctag tctttttaga tgaacatgga naaggaaaca gagcaaacc taaattactt 180  
 acctttgggt cagagcgatc cctttggcaa tggcaatgaa ggaacaattg gagatttcct 240  
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<210> 1212  
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 <212> DNA  
 <213> Arabidopsis thaliana  
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 aaaaaacaaa aggtgagatc aaagaggaaa aatggcgcat agggtagaac aggattatga 180

ttatttgttc aagatcgtgt tgattggtga ttctggtgtc gggaaaacaa acatcttgtc 240  
tagattcaca aggaatgagt tttgtttgga atctaagtcc actattggtg ttgaattcgc 300  
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<210> 1213  
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<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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tgtagaggaa gacagccctt acacgccaga tggcaagaaa ggaacttact attttgagtt 180  
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gccggccaaa atgtccgtcg cattctggta cccagtggac aacaaaccat ggcatggatc 300  
aggacactac acgatnaact gcgattggac accggctaga tatctctctg gggctctctt 360  
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<211> 419  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-01-Q1-B2-C1  
  
<400> 1214

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tgtttcaaga agaaagatct tgtcttttag ggttcttctg cttcaccaag aaaaaacca 180  
actatggaga gtctctgcaa ctccggaaga aatttcccaa gagatcgttt cttctgattc 240

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acaagtgcctt ctctttgttg cttttcttgc tctcaagggtt cctcaacatt ggtgttgtgt 360  
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<210> 1215  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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aaaagctcgg cgatgaagaa gcgagactga agaggggtctc tagcggtccg gctagtgttt 180  
atggtcattc aagaaacccg gttcaagaag tgaagaagac accgacagcg aaaccaaccg 240  
gtggttctgt tcattccttg tttagtttct ttgacgttca ttttcaaaga aagaagaaga 300  
atacggcgaa gaagaagagt ttagcaacgg cgaaaccaga gtttgctagg tatatggagt 360  
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<210> 1216  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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cacttgttca aaccctagct tcaatctctt cggaggttgt ttcttgtttc acctctgttc 180  
gattctcggt tcaacgcaag aacgctcggt ctttgattcg taagatcgag atctttgtcg 240  
tattattcga atttctcgta gattcaaatt ggggctnnnn nnnnnnnnnn nnnnnnnnnn 300  
nnnnnnnnnn nnnnnntct gtttctgaat caacagcttt gctttgtctc aaagagcttt 360

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<211> 412  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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tccacgcgat gcgtgcgtcg ctgctacggt ttcgaaaacg tttgaatcga cggatgaagtc 180  
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agttttctca tcgaagaagg agctctatct ctctctctgt aacgatcctg ttctattcga 300  
cgatgacaaa aagagcgtat ggtagagaa agcagtgagg aagaggtgtc tgatgttatc 360  
tgcatgaac ctctcaatca tatggggaga taatcctcan tattggcaat gg 412

<210> 1218  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-01-Q1-B2-C8

<400> 1218

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tcgccacggc gaacatcttc gtcgtgatcc atgtcattgg tagttaccag atatatgcaa 180  
tgccggtatt tgatatgatg gagactttat tggatcaagaa gctaaatttc agaccaacca 240  
caactcttcg gttctttgtc cgtaatttct acgttgctgc aactatgttt gttgggtatga 300  
cgtttccggt ctccggtggg cttttggcgt tctttgggtg attcgcgttt gcccaccca 360  
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<210> 1219

<211> 416  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnttaatc atcgatcaag 180  
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cagatctcaa gctcggattt ctaatttttg ttggattatc taacccaaaa gccaaaaaaa 360  
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<210> 1220  
<211> 414  
<212> DNA  
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<223> unsure at all n locations  
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cgtattcctc tgatgcttcg tcttcgtgtg agtcacncc tttgagcgtg gngtcttctt 180  
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ttgggaaaga agaagagaag gtttctggtg attgcttcnc tgatggctcg aaaagggtgtg 300  
cttggatnac anctaaagct gacnngtgct atgttgcttt ccatgacgaa aaatggggaa 360  
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<210> 1221  
<211> 405  
<212> DNA  
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<223> unsure at all n locations  
 <223> Clone ID: ARABL1-01-Q1-B2-E2

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gttatctttt tgtgggtctt ttgtttcttg aagccaaatt gtttgtgatg ttggtaatgt 180
tcttttatct tttcagttgg atgtcaagat aatttacagt tggggaaaga atgtcgatgt 240
tataccgcgt ggtgcaggaa aaggagaagc gcttgagtat cttctcaaga agctgcaggc 300
tgaaggaata ttcccgtca atactcttgc ntgtggtgac tctgaacatg atgctgaact 360
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<210> 1222  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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taactgggca gagatgtttg atataaagac tcaaacttgg gagccagtgg ctagtccagg 180
tatggagggt cgtgagaaat ggatgcacgc aagtgcggtt atggaaggga aggtttacgc 240
aatggctgat cgaaacggtg ttgtttacga acccaaggaa aagaaatggg agatgcctga 300
gaagaggctt gatttgggat ggagaggaag agcttgtgtg attgagaaca tattgtattg 360
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 <212> DNA  
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<223> Clone ID: ARABL1-01-Q1-B2-E8

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 attctggatc gtcggattcc gtcgatgtga gcagagacgc cggcggttat cggtttcctt 240  
 tgaagcaagc tgtgacggcc ggagcactca ctttcaccgg tgacacgatt gctcagctat 300  
 cagggagatg gaaaaagaga accgctctta aacaatcatc ttctgagctt gacgaggggg 360  
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<210> 1224  
 <211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tccaacatct tttccaattc taatgtcaca atggcagatg agactgagat taacttganc 360  
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<210> 1225  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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ccgatccgat gatcgtccaa tcatcccttt agacgaattc ggtttcactc acagcgggtcg 180  
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agaagaagag atnacgtgcy ctctacaatc agatctcggt aagcatgtgt tcaacttcaa 360  
caatctcaan gggaggagat aagaagcaga ntctccaacg tattcaacgg agaacgaatg 420  
cgg 423

<210> 1226  
<211> 485  
<212> DNA  
<213> Arabidopsis thaliana  
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tgccgttaaa ggtggtggca acttccttga ccctgaatgg gtcnatggct cgctancaag 360  
agatttcggg ttcganccat tgggtttggg gaaagacccg gcntttctga aatggtacaa 420  
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<210> 1227  
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aa 422

<210> 1228  
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ggccaacgtt ttgccggtaa atgcttggga actgtgtcaa gaagantgcc tgcaaggagc 360  
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<210> 1229  
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<212> DNA  
<213> Arabidopsis thaliana  
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 aggattctct caagaagaag cttctcctcg tctagacaga cttatgttcg ataagataaa 300  
 agaagcatta ggaggaagag ctcatatggt gttatcaagg agcagcgct ctacctcgtc 360  
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 tt 422

<210> 1230  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 aaacagctat ggntaaaggn tgtgagcatg cttactgtgt gacgtgcata ctccgttggg 180  
 caagttacaa ggagaaacct acctgcccac aatgtaagct tccanttgat tttctcaatg 240  
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<210> 1231  
 <211> 421  
 <212> DNA  
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gaacaccacc acactcctcc gcttcttcac cactcaaacc cttcttcctc tcttccccca 240  
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 gagtctctct cttaaacaaa taccttctct tctactacgg tttccgttac ccaatccttc 360  
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<210> 1232  
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<210> 1233  
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 <213> Arabidopsis thaliana  
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gcgaggatga tcgcgcttgg tacgcacgac ggtaccgtgc gtatcctcga tttantgggg 360  
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<210> 1234  
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gttggtgagg gtatggaaga aggagaattc tcaagaggct cgtgaggatc ttgcagcatt 300  
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<210> 1235  
<211> 413  
<212> DNA  
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cgaaatgggt actttacaag aaagaattac ttctacgaaa aaggggtcca taacctctat 180  
tcaagcagtt tatgtacctg cagatgattt gactgacccc gcacctgcca ccacatttgc 240  
acatttagat ggcactaccg tactatcaag aggattagct gccaaaggta tctatccagc 300  
ggtagatcct ttagattcaa cgtcaactat gctacaacct cgaatcgttg gcgaaggaac 360

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<212> DNA  
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<223> unsure at all n locations  
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<400> 1236

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ctacgtcgag attcttgacc gctactttgg cagtgtgtgt gaactcgatt tgatttttaa 240  
cttcacaag gcgtattata tactcgatga gctgttgatc gccggagaac ttcaagagtc 300  
aagcaagaaa acagttgcaa ggataatatc agcccaggat naattggtgg gaatttccaa 360  
aagaaggagg cganttccat aagtaatana aattgctcag gctaacaagt tgcctttt 418

<210> 1237  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-17-Q1-B1-A12  
  
<400> 1237

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cctctgttca tcatcgctct cgagcttctt ctgttcatca agctcctctg ttcttgaaca 180  
tcgacgaaat cagaggctgt ggcagatgcg aacaaagcaa ttgagttgga tcattcatta 240  
atcaaagctt acctaagaaa agggttacaa ctcaagtgtt ttgagaaaga agatggctaa 300  
agatctcgga gatagattta tctaatagaag ttgtggatga agtgaataac ttccctcact 360  
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a 421



<210> 1238  
 <211> 396  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 1238

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tgccctctcg agttcaaata ggggatgata gcaaattctc gatctttttc aatgtggtat 180
tcgggtaaaa taatcacaaa ggaatctgta gtcactggaa tttcaaccct tttcaataga 240
atacgtttgt ttgtttgttc cactgtaate tcacgggtgtg tcatgttaat gatccaaccg 300
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<210> 1239  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 1239

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actacaaaga gccaccanct gcgccgttgt tccgagcccg gcgagctaac ttcaag_ c 180
ttctgganan ctgggattgc tgantttaaa gctacgtttt tgttcctgta catcactgtt 240
ttgactgtta tgggtgtnaa nangtcancg aacatgtgtg cttccgtcng aatccaaggt 300
atcgcttggg ctttcngtng gaagatcttc gntctcgtcc antgcaacgc tggrr_ cc 360
ggtggacana ttaaaccaac cggttacttc ngtttgttcc taacctagga ctttcn_ 418
  
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<210> 1240  
 <211> 418  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-17-Q1-B1-B9

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cagctgaggt attcaggtca ggttgttgc gtcaaagttc aacgccctgg gatcgacgaa 180  
gccattggcc ttgattttta ccttattaga ggagttggga aactcattaa caagtatgta 240  
gacttcatca ctaccgatgt ccttaccctt atcgatgagt tcgcctgcaa gagtttatca 300  
ggagctaaac tatgtccagg aggcccaaaa tgccaagaag gtttaaaaaa ttgtatgcag 360  
atnaagcaga tgttccttgc gctgaatat aatctgggat acacgagccg caaagggtg 418

<210> 1241

<211> 423

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-17-Q1-B1-C10

<400> 1241

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ataatcatca naaacacttc aatctttttt cacagttttt gagcaaaggt tatgggggatt 180  
ttgagatcga tttggtggca gaaacatcgc gtaacanccc tccccccctt catctagatc 240  
ctcaggcctc gtccatctgc tcntgcatat cggagggtcca aagggttaaa ttgtccctca 300  
gcanactgca ttatganagt gctgtcnttg taggattcct ctcccaagag tgtcaaagct 360  
cagctatggc ctccccaaaa agcccggttt ggccatgtta caagccttgg nctgaagaaa 420  
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<210> 1242

<211> 426

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
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 gtaacgcaac gacatacttt gtaggagaca gctccggttg ggacataagc tccgatctcg 180  
 agtcttggac ttcaggcaag cgattctctc ctggtgatgt tctaattgtc caatactcat 240  
 cgacgcatag tgtatacgaa gtggctaaag acaactacca aaattgcaac acaacagatg 300  
 cgattcggac gttcacaaac gggaacacga accgtttgct cttttccaaa accggggaaa 360  
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 naatca 426

<210> 1243  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-17-Q1-B1-D11  
  
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 ctatctctca gtctcatca tcataaagtg gtgcactggt tctcaagcag atttgatatca 180  
 tgtaatgata tatatgttcc tgagcccaat ggacgagtta ggagagaatc aactgttccc 240  
 tcaccagaaa acattacagc ttgtgcttct ctttctggct cttgtttctg ttccgtgtat 300  
 gttgcttcca aagccgttca tcttgaagaa acaacatgaa gctaggcatc aangncaagc 360  
 cgtaagcanc tcttgacgaa gacagatgag aagtcctcaa gtttnaaaca aacg 414

<210> 1244  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABL1-17-Q1-B1-E10

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atggacagag acagaaagag ggtgaaaatg gagaaggaag atgacgaaga agaaaagatg 180  
gagaagttgt acacagtgtc taaaaacgca agggaaatgc ggaaatatgt caacagctcc 240  
atggagaaga agagacagga agaagaagaa agagcaaggg ttcgtagatt cccttcgttt 300  
cagccagaag atttcanttt catgantaaa gcagaggcca acaacattga aaaagcagct 360  
aatgagagcc tcaacatcca accaantata tggctctaag gaaaagcaaa gaangga 417

<210> 1245

<211> 406

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-17-Q1-B1-E12

<400> 1245

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ttttcttttag cttctacttc agaccggcgt tgaatgagaa atccaagtct aaggtcattn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnttt tactgggttt gataaatctg 240  
atctcaagct cgatgttttt cttgttcagc atgatatgga gaacatgtat atgtgggctt 300  
ttaaggataa acctgagaat gcgcttggga aaatgcagtt gagaanctat atgaatgggc 360  
attcctcgtc aaggtgagct ccgtttcccg tttaattgcc gganaa 406

<210> 1246

<211> 417

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-17-Q1-B1-F10

<400> 1246

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 agcaatcctc ntccctcgta cggatcatca gntcctcac cgtacgcagt tccctacgga 240  
 gctcannccg ctenttacgg tgnaccaccg tcancacngt acgcgtctct tccaggagat 300  
 cataataagc cgcacaagga gaancctcac ggcgcctcct acggatctcc atctcncggt 360  
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<210> 1247  
 <211> 403  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-17-Q1-B1-F12  
 <400> 1247

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 cggaacaaa agcttctctt ggcggcgga gaggatcgaa cttgaagact tttcagatct 180  
 atcgatggaa tccagataat ccagggaagc cagagcttca aaattaccag atcgatctca 240  
 aagattgtgg tccaatggta ttagatgctt tgattaagat caaaaacgaa atggatccat 300  
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<210> 1248  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-17-Q1-B1-F9  
 <400> 1248

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 gccgcctcaa agaaaacgag gatttacgga ataatatgat atcagttgtc aaggagtcaa 180

catctttgaa acgacatggt gctcaaaata tgaaaaccag gcaactctct gatgcgatat 240  
 tcgaagaagt cgggagcaag atgctaagcc agctctcaga tggtttatgg gggataataa 300  
 gatcagaaga cgggatgaag aatgaaatca gagaaaccgt tcaatccgtc tacgccacat 360  
 tatcctaacc cgagaaggca anaaacgcgg aacatccgct agagaaatgg gacataag 418

<210> 1249  
 <211> 389  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 ctaatcanct ggctcatttt cagacncann gctgtcaaat tcgatgtcac cgaanctaaa 300  
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 aaaatccggt aaccttaacc gncggattg 389

<210> 1250  
 <211> 404  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 ttcttgctat ttctcacctc tgtataagca agctctctgc tgtttctcct catccaagtt 180  
 gggtttatca gttcagctgt gtagaaattc aatcgtctga gaagtccgag gtttgatgtc 240  
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tttttgaggt tattgtaatc agatcttgat gccaatccg ggtgaaagag atttaagaca 360  
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<210> 1251  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 ggacagagac agttgttctg tttaggcaga gcagttttga gaagaagcag agtattagtc 180  
 ctggacgaag ccacggcatc gatagataat gcaacagatt tgatacttca gaaaacaatc 240  
 aggcgagaat ttgcagattg cactgtcatt acagttgctc accgtatccc taccgttatg 300  
 gattgtacaa tggttctctc catcagcgac ggacggattg tggatatgat gagccaatga 360  
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<210> 1252  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 ctatgggatc tcacacgtga tcaagttgaa ngtgtgggtc gagccgttgg aaccggacct 360  
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<210> 1253  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABL1-18-Q1-B1-A12  
  
 <400> 1253 .

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 aagcagccca ttataccatg ggggtccaagg ttttccaggt cctccaagaa tgatatgttg 180  
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 taaaaccgc tgcagttcat gtcttttgta tttgtttaca agaatttttg agaaattaaa 300  
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<210> 1254  
 <211> 353  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
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 gatggtgaat gtcgtgttac cgctctgtt ttctcagca cctttgttgc cgtatcaggc 240  
 tccttctgta ccggttgttg ggttggtttt tcancgggtg canaaacagg gattaccana 300  
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<210> 1255  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
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 gaaaaaacia atattaatgc aaaagtgatt caataaccct acaaaccgtt cgtttggggg 180  
 tgattttttt agcacttggt gaaaaattga attgttttagt ttgtgttttc caaactgata 240  
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<210> 1256  
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 <212> DNA  
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<223> unsure at all n locations  
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 ctcgatgaca tttgctgata tccgcggnaa gattaattgg ctctccaag ctttattaag 360  
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 cgaagc 426

<210> 1257  
 <211> 411  
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<223> Clone ID: ARABL1-18-Q1-B1-B8

<400> 1257

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tgggtctccc aacaaggcga actcatacag tgtccatgga gctgcacttg gcgagaagga 240  
agttgaggct accaagaaat aaccttggat ggccgtatga gccgttccag gtacctgacg 300  
atgtaaaaag ccactggagt cgtcatacac ctgaaggagc tactcttgaa tctgactgga 360  
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<210> 1258

<211> 413

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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ttctctctct tctcggcgga tgttcgccgt cttaccggaa tcatcagggt tgagaatccg 180  
tctttctctc tctcgggctt cggttgacctc gattcatcaa cctaggggtt ctcgattacg 240  
aagagccgtc gtctgtgaa gctcaggaaa ctactaccga tnttcantgg ggncaangan 300  
tcnacatggg gancncaagt tctnaaangn aantggggcc tgtanttgct nacttttggg 360  
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<210> 1259

<211> 414

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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nnnnnnnnnn nnnnnnnnnn nnnnnnnngcc ggtgacatct tctccgccgc tcgcagctcc 240  
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tcaactgaanc atgaccagtt tttcgaangn attctccacg tctctctgcc cacgtgggat 360  
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<210> 1260  
<211> 409  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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gtaaagtttc cacctttcgt cttctttctg atctgtgagc aaaaatggga caacagcaat 180  
caaaagggga attgctgtat cagcaagtta gttatggtaa ctctgaagga attcgagctc 240  
ttcatcgaga tgggtggagac cttgagtgga tggatagaga aggaaaaact ccgttgatct 300  
tggcttgat gaactccgag ctatttgatg ttgctaagac tttgattgaa ttgggttcta 360  
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<210> 1261  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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acacatgggt cgctgaatat agaaagtgga tggacaaagt tggcatggg atgccttacc 120  
atttcgggca taggaccata tctctcccca aagtcctcc tgcgtggaa catgccccgg 180

cagggctcat tgcagctctc tctgcttctt accctgcaaa aggcngaatt gggactatgc 240  
atcntcccaa tttgggtaac cgggtacttc atacatanta atcaattgta caagctgcaa 300  
caacgtgac aaatcctttg aactctggaa aaatanctc cnggncaang ggaattggat 360  
ttgaacggnt tgggcaatcc nggnngntta ctaaacattg gaaggctgtc ccggttaa 418

<210> 1262  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-18-Q1-B1-D1  
<400> 1262

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tggcaaaatt gtttcacttt cgctctaaaa acttcatctt cactttctct cctcctccat 120  
ggcggacggg ggggctgaac ctccagctcc accatcatcg ataaacgccg gtgaatttct 180  
cttgtctatt ttgcacggaa gtccttcgcc gtcgtcacia ggtcctcaag catcatcaag 240  
tcattcgctc tcgatncaac catcgcaacc attgggtcct aacgtcaata atccttttcc 300  
tccgtcnaat tggnaatcca acgggcatcg aaccaatnat caaaaccctc cttcctgggc 360  
aatccccttt tcaactcctc aaaatccttt ccccaaattc ctaagggttc cccaaatt 418

<210> 1263  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABL1-18-Q1-B1-D10  
<400> 1263

ctcgagccgt tctatatatt tcccaaactt agtgccactt agacacaata agaaaaccgt 60  
taacaagaag aaaaaaaaaa gatcgaaaat ggaatatcaa actaacttct taagtggaga 120  
gttttccccg gagaactctt cttcaagctc atggagctca caagaatcat tcttgtggga 180  
agagagtttc ttacatcaat catttgacca atccttcctt ttatctagcc ctactgataa 240  
ctactgtgat gacttctttg catttgaatc atcaatcata aaagaagaag gaaaagaagc 300

caccgtggcg gccgaggagg aggagaagtc atacagagga gtgaggaaac gggcgtgggg 360  
gaaattcgcg gccgagataa gagactcaac gaaggaaaag ggataagatg ttg 413

<210> 1264  
<211> 280  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABL1-18-Q1-B1-D11  
  
<400> 1264

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cgtcgccgtt aatgcggctg tggcggttgc cgtgtaatgc agcttctcgg gttgataaca 120  
tttttatagt aattaataca tacatttacc tttgggtttt gtgattgttg tgtaaacacag 180  
taaaaaaaat gatttcgttg tgctatgtaa actttgtaag caaataactct tcttcctaaa 240  
gtaaaaaagt ttgattgttt taaaaaaaaa aaaaaaaggg 280

<210> 1265  
<211> 404  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-18-Q1-B1-D2  
  
<400> 1265

gagtttctcc tcaaaatadc agatcgataa ccaacaagcg aaactagggt tctctaactct 60  
cgacgaagat ggcgatgcag aaagctaagg agatcgttaa cagcgaatca gtcggtgttt 120  
tcagcaagac ttattgtcca tattgcgtga gagtgaagga gcttttgcaa caattgggaa 180  
ccnaattnca aggccgttga nccccaaacn gaangtgatg gtagccaaat tcaatcaggt 240  
ccgcanaat gggcangnca acgttaccgt gcctaattgtg nttaataagg anggaaatca 300  
acatcgggtg gctggtgatg caacatcaaa cntgcataaa gaatgggaaa tttgggtcnn 360  
cggttaactg aaaccgggac catttcaagg aaagactgna acaa 404

<210> 1266  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-18-Q1-B1-D4

<400> 1266

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gtacnggntc cggtcagatc taattattaa ncgcatccnc ctgggagcaa acccgacccg 120  
ggaactcgct aagtcgtata caaccggaa accctgttgc tggatattcc caattatgga 180  
taatccgccc atcgtaccgg gaaacncaa acaaaacttn ccgttgggan ccacagggat 240  
nangnaattc gncgccggaa gtgatacgtc agctccacgg aaatgtaaaa ncaccgtcgg 300  
tactttaacc tcgttcatat tggagagatc gaaacacgtg tcnaagagtg agaaatccgg 360  
agctcntttc aatgtcntag ctcccgancc gggaagcgtc tctcaaanca ata 413

<210> 1267  
<211> 417  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-18-Q1-B1-D5

<400> 1267

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atccgattct ttggaagacg gtggatttgt caaacatgag atctagtttc atcaagatcc 120  
cacatagaca taaggctcta atgggatctt gaaactctcc atgaacctta gcggaggaag 180  
cacgaggacc ttgatttttc atttcaactt gttcttgagt gatgatcagc ttacttacac 240  
cgcagaaagg tgtccanggt tganacgggt cgtcctaacg gcttgggaaca aaataaaaga 300  
aaactgggtat atgcaaagcg ataagaaacc ggaaaagatn taaaagtccc taaacaattg 360  
ccaagccatc cgcaaaccgg cntaaccgcc ntaacagaaa nttgccaaga actgcaa 417

<210> 1268  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-18-Q1-B1-D8

<400> 1268

tcgagcggct cgagcggctc gagcggctcg agtnnnnnnn nnnnnnnnnn nnnnnnnnnn 60

nnnnnnnnng ggacatggac gccattgatt ccgtcgtgga tcctcttaga gactttgcca 120

aggacagcat tcncctcgtt aagcgttgtc ataagccaga tcgcaaagaa ttcacgaaag 180

ttgcagtccg tacagcaatc gggttcgtag taatgggatt cgtgggattc tttgtnaanc 240

tcctctttat tccaatcaac aanatcatcg tcggtgctac ntanattaca aagggaanat 300

aaangatgga gaagggtant tacaactttg ttgttttcat ganagacact tcacaatttt 360

tttccttttt ccntgttcaa nataactcata aaagaaggaa acattttgtg aacc 414

<210> 1269

<211> 406

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-18-Q1-B1-D9

<400> 1269

ctcgagggag aattcggaat attagaaggg agatcatttg cgttgatata cccaattgtg 60

atgggaggtt tatttgcata cactctttgg actggttact taggttggca atggagacgt 120

gtccgtacga tacagagtga gattagtgat ctcaagaaac agcttaaacc aactcctgtt 180

tcccctgatg gttccacagc cgttgattct tcgtcgctc cttctacgac tgagcttcag 240

atccaacggc taactgaaga gaggaagag ttggtcaaag ggtcttacag agacaaacac 300

tttgacgctg gctctgtttt gttaagtttc ggtgttttgg aaactgtctt tgggtggtgtt 360

aacacttaac ctcggtactg gtaaaactct ccccggtcct caacct 406

<210> 1270

<211> 412

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABL1-18-Q1-B1-E1

<400> 1270

tcgagttcca agcagagatg acggtgaaga taaggctcgc gcttcttggg tgtaaacacc 60

gacccttcta tcgtgtagtt gtcgccgatg aaaaatcgcg cagggacggt aaacaaatcg 120

aggtgttagg cttttatgat ccactccaag gcaaagaaga tgcggataga gtgagcctca 180  
aatcgcacag aatcaagtac tggttatctg ttggagctca accaacagac acagtggaaa 240  
gcatgctttt caaggccggt tttgatacca ccaaagccct aatggtaatg gtccggtccg 300  
aaaaatgggc aaaaatccaa cgaanacaac tgtttcaacc attacanggt gaaatccttg 360  
aactaagaat gttgatgcct ttaagcaaaa aaaaaccctt tgtgtccngg tg 412

<210> 1271  
<211> 406  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABL1-18-Q1-B1-E10

<400> 1271

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tcagtggacg aggtcggagg ataagatggt tgagcaagct ttggttcttt ttcctgaagg 120  
atctcctaata cgggtgggaga gaatcgctga tcagcttcat aaatctgctg gtgaagttag 180  
ggagcattac gaggtcttgg ttcattgatgt tttcgagatt gattctggtc gagttgatgt 240  
ccctgattac atggatgact cggcggctgc ggcggcgggt tgggattccg ctggtcagat 300  
ctcttttggg tctaaacatg gcgagagtga acgcaaaaaga ggaactcctt ggacagagaa 360  
cgaacacaaa ttgttttctg atcggattaa agagatatgg gaangg 406

<210> 1272  
<211> 366  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABLI-09-Q1-B1-D2

<400> 1272

gttttgtttc aactattcga tcaaaacgat accctgtgac cgccttccaa tggcatccag 60  
agaaaaatgc attcgaatgg ggatcatctg anatcccaca ctctgaggac gcaattcagg 120  
tgactcaaca tgctgcaaat tatctagtca gtgaagccag aaagtcaatg aacagaccat 180  
cttctgagaa agtgctgagc aatctcatct acaactacaa gcctacgtac tccggatata 240



aagggagcgg tgacgacgag gtttatatatt tcacgtaaca aagatccctt ctctgtgtg 300  
 ttttcgccaa aaacatagca atttatatta nttactaaaa anagnnggtc naangnaaaa 360  
 agggcc 366

<210> 1273  
 <211> 399  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-D6  
 <400> 1273

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 agaaccaaca atgctccaac ctttctcttc ctctctgtt ttctcgagaa tcctctggac 120  
 tttcttggtt taagaagatt cgttggtgaa tcagagagaa agaaagcatc catttttcta 180  
 tcattgcttg cttgctatgg aattgggtaa atctcgattc tacttatgtt gcaattgctt 240  
 ttctctgtt agattttccg attattcttt agctggaagt gattatccag acgcatctc 300  
 catcactttc aattgtattc ctataccttc tccgaagaat cctcgtaatt cncgaatcga 360  
 tgttataaac ttcaaattcn cctccaaatc ctgaaacga 399

<210> 1274  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-D7  
 <400> 1274

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 gccagcttca aacatggacc cttacgttgt tacttccatg attgcagaga ctacactcct 120  
 ctggaaccct tgaaaggatg atccgtaact cttgaagttg cttctgattg gggttttttg 180  
 aagttccaag cttgtctttt ctctacagtg tgtattaagc aattgtaccg gttgacactg 240  
 ccggagtttg tgatttgggg ctttcttttc ttttctntct ttttataatc ctttgggggt 300  
 cctgtgggta agagcaaatt ccnggtttgc ccngttgttt gacnttaatt gaaaaccttt 360

ggaattggta acnaataana caatcctgaa aaaggctcct caagtttcaa atgg 414

<210> 1275  
 <211> 398  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-D8  
 <400> 1275

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 cggattcttt acacctaaag actcatctac ttccgaactc gggtcagctg gtcttagata 120  
 tcttggtatt tggcctcaaa gtattccaat aaatctagtt tgggtgggta acccaaccga 180  
 atcagtttct gattcatctg gttctctatc cattgacacc aatgggggttc taaagataac 240  
 acaggcaaac gctattccaa tcttggtgaa ccaaagacca gccgcgcagc tttcattggt 300  
 cgggaatgtg tctgccatth tactcgatac ggggaacttt gtgggtccga gagattaagg 360  
 ccaaggaagg agttccgggt ccgtgttcna ttgcaaaa 398

<210> 1276  
 <211> 379  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-E5  
 <400> 1276

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 atattccctt agnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnc taatttcctt gttgattcat cgactagatc taattcttct cacaaaagac 180  
 tgagtgtgtt ctttctttca aatctttcaa aaactagggt ttttactgtc ttgaaatcat 240  
 angtattctt ctanatttag canaaagagc acgatttact ttccattnca ntogtcttgt 300  
 nactctctct ctcttcntta aagtctnccc tttttagcan ggattctctc tctcacaaaa 360  
 attattccaa agggnthct 379

<210> 1277  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-E7  
  
 <400> 1277  
  
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 gaggtggtaa agacaagcat catgatgagc aagagaaagg atttcatggg tttccaggag 120  
 gtggacatta cccacctgct caaggagggt accctcctca aggttaccca ccacaacaag 180  
 ggtatcctcc agctggaggc taccacacctg ccggatatcc tcttggtgct taccctgctg 240  
 cgcccgggtg ttatcctcct gcacctggag gttaccctcc tgctggctat cntgcacctg 300  
 gagctcaaca ttcaggacat tctggtggtg gactcngagg catgatanca agtgcacctg 360  
 gtgcaaccgc aacaacttat ggagctcaac aatgttggtc acgcctct 408

<210> 1278  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-E9  
  
 <400> 1278  
  
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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnngt cagaccctgg atncaaagat 180  
 nacgacattn acaacatcct tatcggtcnt tanggatccc aatatagata caaggaaatg 240  
 cggagatna taantcccgt aggcaggaag caactggaac cgatgttaca aagctaccgc 300  
 aaggttggtg gcgctgagct ttcanagaga atggtgtatg aaatcaactg aaagcttcaa 360  
 caataccaag ctcatgaac tttggtaccn attgt 395

<210> 1279  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-F1

<400> 1279

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 attgcaatgg tgaccagaac ttagaagcaa accttctaga tcatgaggaa actgaatcat 120  
 tttcagtacc tcaaacgaag aactgtaaga ggtggctccg tgtctccata tacgcaatct 180  
 ttgtcatctt ctgccaacca cttgctacag ttctgggtag actgtactat gaaaatggag 240  
 ggaaaagcac atatgtggta acacttcttc aactcattgg cttccctgta ctgattctct 300  
 tccgcttctt ttctcgaatc angcaaccca aatcaacaga tacaaatttc aatcaatccc 360  
 cctccttnaa caaccttgca tcggtttaac tggggcactg gactgct 407

<210> 1280  
 <211> 435  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-F10

<400> 1280

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 gtttcaagtc atgatttttc cgataccctt ttgatttttc ttgctatttc tcacctctgt 180  
 ataagcaagc tctctgctgt ttctcctcat ccaagttggg tttatcagtt cagctgtgta 240  
 gaaattcaat cgtctgagaa gtccgagggt tgatgtctga tggttttaag atcgaaagga 300  
 tttgactttt aacanattaa gtaatgagat tagattgttt ttgaagggtta atggaatcaa 360  
 gattntgatg ccanttcctg gtgaaagaga attaaagaca agttaaggaa tgggtaatac 420  
 ntgttggttg gacca 435

<210> 1281  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-09-Q1-B1-F11

<400> 1281

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cctaatttcg aatctctttg ctgatttggg gagatctcaa ttccggaaag aagatgacga 120  
aggatttcgc agttccacct gtagttttcc cctccggtgg atcttcangc ggtgctaattg 180  
tccancaacg aagattccca gcgacaacgt ttnaaancgg cgggttcctc ttctttcgca 240  
aacccttca agtcaatcga cattggnttt cgcaaacgcg tttccggta aaaatggcgg 300  
gagcaattgg ggggaaaaan gcntccncnc nncctttngg gggggggtca acctcctnt 360  
agaatanggg gncattttnc aannagatcc ggatccancc nattaataaac tggggaaaaa 420  
an 422

<210> 1282

<211> 471

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-09-Q1-B1-F12

<400> 1282

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gagagaaacc tgtctgattt gctccgtcgc ctaaaaagtc taaaacccta agtgtctccg 120  
cctcgtagct ttaccgatt caacgaagag tgaattcgcg tgagctcaag cagtatcgaa 180  
atctaccaat catggcgagt caaacaccga atctcgagtg tcggatgtac gaggcgaaat 240  
accagaggt ggatatggcg gtgatgatcc aggtgaagaa cattgccgat atgggagctt 300  
atgtttctct cctcgagtac aacaacatcg aaggcatgat cttttctcc gagctctctc 360  
gtcgtcggga ttcgaaatgt tagcantttg attaaggctg gaagaattga ncctgtcatg 420  
gttctccgtg ttgacaaaag agaaangtta cattgatctg agcaaactta a 471

<210> 1283

<211> 404

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-09-Q1-B1-F5

<400> 1283

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cgtatgcgtg aagcagggct cattaaagga ggttctctgg ataacgccat agtttgtagc 120  
gctgagcatg gatggatgaa tcctcctctg cggtttgatg atgaagcatg tcgacataag 180  
attcttgacc taatcgggtga cctctccctt gtttcacggg gcggaaatgg aggactcccc 240  
gtggctcaca tagtcgcata taangcgggt catgcactgc aactgactt agcacgtcac 300  
cttacatgga ctgaagagta tgtgctcgtt gtcaaccata tcccgcaaaa agccttgatt 360  
gttcgcgttc cttttgggat ccttaaccaa aagatggtaa caat 404

<210> 1284

<211> 404

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-09-Q1-B1-F7

<400> 1284

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gaatgatttg gagagcctaa ctgggaagta tgataccgtt gtatgtctcg acgtgttgat 120  
acattacccg cagaacaaag cagacggaat gatcgcacat cttgcttctt tagcagagaa 180  
gagagtgatt ctgagttttg ctcaaagac tttttactat gatattctaa agagaattgg 240  
agagcttttc ccagggccat caaaagctac aagggcgtat ctacactcgg aggcggatgt 300  
ggaaagagcg ttgggtaaag tcggctggaa aatcagcaag agaggactca ctaccacaca 360  
gttctacttc tctangctca tcgaagctgt tccaatgtag acca 404

<210> 1285

<211> 465

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-09-Q1-B1-G10

<400> 1285

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 tgttcttata tcccatacct acgtncataa ccatatacaa gaagaaaaag gtggaggagt 180  
 acaaagctga cccatactta gccacgggtc taaattgcgc actatgggtc ttttatggct 240  
 taccaatggg tcaaccagat agtctccttg tgatcaccat aaatgggtacc ggtttagcca 300  
 ttgagctggg gtatctcgct atcttcttct tcttttctcc aactagtcgc aaggtgaaag 360  
 tggggctatg gttaatanga gagatgggtg ttgtangaat antaaccaca tgcacattgc 420  
 tattgttcca cacacataac cagagatctc ctttgttggg atctt 465

<210> 1286  
 <211> 471  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-G11  
 <400> 1286

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 aaaaaaagat gagagaagga tctcatgtta ttgttttgcc tttcccagca caaggccaca 120  
 taactccaat gtcccaattc tgtaaacgct tagcctcaaa aagtcttaag atcactcttg 180  
 tcctcgtctc cgacaagccc tctccgccgt acaaaacaga gcacgacaca atcactgtcg 240  
 tccccatctc caatggtttc caagaaggcc aggaacgac agaagaccta gatgagtaca 300  
 tggaaagagt agaatccagc atcaaaaacc gcttaccgaa gttgatagaa gacatgaaac 360  
 tatcgggaaa tcctcctaag ggctcctgtg tacgactcca ccatgccgtg gcttcengga 420  
 tgttactcat aattaagggt tgagcngtgc cgttgttttt cacgcaagcc t 471

<210> 1287  
 <211> 466  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-G2  
 <400> 1287

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 aggcgtagca gctttcccta tagtgagtcg tattagagct tggcgtaatc atgggcatag 240  
 ctgtttcctg tgtgaaattg ttatccgctc acaattccac acaacatacg agccggaagc 300  
 ataaagtgtg aagcctgggg tgcctaata gtagagtaac tcacattaat tgcgttgogc 360  
 tcaactgccc ctttccagtc ggggaaacct gtccttgcca actggcatta atngaataccg 420  
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 accgacgaga aaagtaccaa cgtccaagta ggtaaaggcg gagtaaactg taacacccat 240  
 aaaggtaaaa ccggtagcgg aaccgccgtg aacgttggaaggaggaggtg acgcgtggac 300  
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 ttcaaagaaa catgttccac cacttcactc tcttgagttc atggaacttc agaaaagaaa 240  
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 aatgagaatt gcggcggcag cctttgaagc ggcggttg nctaaggang ggcaaagata 360  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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 cttcactagt tgacttttcc tctaaagaag gagatattga agcagttctt aaggacattg 180  
 caggaagagc tggtagtaag gaggggttta gttacagcag gttcttcgct gttgggctct 240  
 ttcgtttgct tgagcttgca agtgctactg attcaactgt cctggacaaa ccttgtgcat 300  
 ccctaaatat caacaaagaa aaaccttgat cggaactgg atgtgttanc gtaacctgnc 360  
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<210> 1291  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-09-Q1-B1-H2

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 tctgcttcac tagttgactt ttcctctaaa gaaggagata ttgaagcagt tcttaaggac 180

attgcaggaa gagctggtag taaggagggg tttagttaca gcaggttctt cgctgttggg 240  
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gcatccctaa atatcaacaa gaaaancctg gatnnggaac tggatgtgta acntnacctg 360  
cnttcaaanc ctgtccaagc caangaattg ccctaaagga gtatgtcc 408

<210> 1292  
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<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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ttattaagct cgaaacaatt gttcttcaact ctggccgctt ctgcaaagtc gtgtgcttct 180  
cgcacctctg cgcagggtgtg ggggtggcctt gaagtgggtga cttcactctg tcttccaagg 240  
atctctctag cttctatcat ttggaggctc cgctcgtgtt cggagggtct tacccttgat 300  
acngctaaaa anttactacg cccaactaat aacaacctcc ttaagccttt aaaannaact 360  
tttaatccgn gcaaaaaatt aaacttgggt ncttaaaatg gttccaantt t 411

<210> 1293  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABLI-10-Q1-B1-A1  
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tgatccgcaa aggcgtctca aaaaacaaac tcatcgctga cttcaacgcc actctcaaac 180  
gtggcaagaa cctcatgttc caccaacgtc gtcgtgtcca cgccggttcc accgcctcag 240  
ccgctctaaa cgctacttca gccaccgct catcgcgaca agagtacgag tttagctgca 300  
gcaacactcc aaactattca ttccctttct ctaatatggc tttcatgagg aaaaagagtc 360

acaataatct cttcacgtgt ggtcaaaacg cctcagacgc ttgacgacga cgtt 414

<210> 1294  
<211> 386  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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tggtgaagct gtttctggag ctaagttcga tgagctttat cgggtcaagct gggctatgga 180  
tcattgtgtc aacgaaggcg aagtcacaaa actcaagctt gacaattact ctggagctgg 240  
gtttgaatca agaagcaaat acttgtttgg taaagtctct atccagatta agcttgttga 300  
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cgaattccat ttgattcct aaggaa 386

<210> 1295  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 1295

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caaaaatcag aagcagggca ggctaaagaa gaagactttg ccgcgagggg cttcagaata 180  
tcaggctgct tggattgttg atgagnacag atgaatagga ttccgataat ggtgattctg 240  
atgataatgg tatggtattg gatataggag aggattccaa tcaagaagga atgtatgacc 300  
aaagaatttg aggatgacgg aaaatcattg aacctgcggg ataatagatac tgaaactcaa 360  
gaatgaatcc caaatggttg acgatgaana cttgacagaa gaacaaanta aaggatgaaa 420  
t 421

<210> 1296  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-10-Q1-B1-A3

<400> 1296

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ctctttatga agatcaagcc ggcctcactg attggcacca aaggtagcatt gggaaagtga 180
agcatgcagt attccacact caaaagactg gaagaaagcg tggtatcgtc tcaaccgagg 240
agaatgttgt tgcttcactt gatctcagac atggggagat attttggcga catgttctcg 300
ggacaaagga cgctatcgat ggggttggtg ttgccttggg gaaaatatgt tatcactctt 360
tcatcaagaa ggaagtactt taaagagcct ggaaacttcc tgatngtcaa atggt 415
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<210> 1297  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 1297

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cccacctgct caaggagggt accctcctca aggttaccca ccacaacaag ggtatcctcc 180
agctggaggc taccacactg ccggatatcc tcttgggtgct taccctgctg cgcccggtgg 240
ttatcctcct gcacctggag gttaccctcc tgctggctat cctgcacctg gagctcacca 300
ttcangacat tctgggtggg ggactcggag gcatgatagc aagtgcagct ggtgcaaccg 360
caagcagctt atgggagctc aacatgttgg tcacgcctct cacaaccct tacgggcatg 420
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<210> 1298  
 <211> 413

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 atgaaaggag aacacaatgc agcctgctta tctcgtcta cagccttttg gtantgttcc 180  
 tgctgttggt gacngtgacg acaaaatctt cgagtcccggt gcngtgatga ggtacctacc 240  
 tgacaagtac aggtcacang gacctgatct tntggggaaa accgttgana acagangtca 300  
 agttgaacaa aggcntgatg tggaagcgac caactaccac ncaacgctaa ttgnacttaa 360  
 cgcntcacat aatgttcgca tcagtcattg gaatcccatc tgatgagaag ctg 413

<210> 1299  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 gggaggtggt aaagacaagc atcatgatga gcaagagaaa ggatttcattg gttttccagg 120  
 aggtggacat taccacactg ctcaaggagg ttaccctcct caagggtacc caccacaaca 180  
 agggatcct ccagctggag gctaccacc tgccggatat cctcctggtg cttaccctgc 240  
 tgcgcccggg ggttatcctc ctgcacctgg aggttaccct cctgctggct atcctgcacc 300  
 tggagctcac cattcaggac attctggtgg tggactcgga ngcatgataa caagttcagc 360  
 tgggtcancc gcagcanctt atggagctca catgttggtc acgcctctca caa 413

<210> 1300  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations

<223> Clone ID: ARABLI-10-Q1-B1-B7

<400> 1300

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ctgaccctta tggttggcag tttgggtgga agaaaatgga taagaaagct aagaaaatgg 180  
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aacagacttt caagagaatg aagagcaatg aatctgctac tgacaatctt ttggagtatc 300  
agaaaaaagt tacatggaaa agacacgaag tgaagaatct gcgggatgtg tctctttggg 360  
aaccgtactt atgactatac cgtcattctc ttggttagat nagttttcac aat 413

<210> 1301

<211> 415

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABLI-10-Q1-B1-C1

<400> 1301

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tccgtttctg gaaaattcaa tctcactcac gcgcgtcttc acgatcta atcgaacgcgcc 180  
gcttcacgcc ttgtctccga cgctggaatc aaaccggcg atgtcgttgc tctcaccttc 240  
cctaaccacg tcgagtttgt tataatgttt ttagcgggtga taagagctag agccacggcg 300  
gcgccgttga acgcagcgta cacggcggag gaatttgagt ttacctctc cgattcagat 360  
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<210> 1302

<211> 392

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABLI-10-Q1-B1-C11

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 atgcagagaa cgggtttcgt tcgcctctta tagatgggtga caacatgggt tcgttcgaga 240  
 agagaaaaac ttctgggtcg gaagcactaa agtcatatgt tcctctcttc cagattatat 300  
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<210> 1303  
 <211> 408  
 <212> DNA  
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<223> unsure at all n locations  
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 ggattaaaag atggaccant cttttatttt gatattccgt tagcttggtc agttattgta 180  
 gaagctgtac cgtcaagact tttaatatct caaatggatg atggtgggca tcgtgagaat 240  
 ggtcggcata aagcagcagt tcagggccag tggttgatgc agcatcagcc gtcgatgaaa 300  
 caagtgatgt cgataatagc agagcgcgat gcancgattc agggagagaa atctggngat 360  
 atcagagaaa aaagcaacag tagntgaaaa ggacatggcg tttcttca 408

<210> 1304  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABLI-10-Q1-B1-C5

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 gcgatcgaga cggacgcgcg tggatcgcac gcgaaagttc gtgtgaggtg gtattatcgc 180  
 cctgaggaat ctatcggagg gaggagacaa ttccatggag ccaaggaggt tttctctct 240

gaccacttcg attttcaaag cgccgatacg attgaaggaa agtgtaaggt tcacagtttc 300  
 agtagctaca ccaaacttga ctctgttgga aacgacgact tcttctgtcg ttctgaagta 360  
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<210> 1305  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 ttataatca tcaatggacg atgatggatt tcgcaattgg ggatactatg aaccagcggc 240  
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 taaaaccgtt ttaaccgggt cgtgaatccg aatccntaan gattgggttc aaagggntcg 360  
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 aaa 423

<210> 1306  
 <211> 396  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 antccgtcgc cgaaaacaac cggatcanct ttagtaaacc ggttcgtcca ngaaaaatcc 240  
 atccgctgtt tctgtacaag tcggcgacta tgttcagctt gottacagcc atcacaacta 300



gagtcctctc cggcctaaga tnatttggag ctaatganta aatattnctg cttgttcnaa 360  
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<210> 1307  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 gcaaagaatc tgctactacg caagtctctc ctctagattt tcnggcggcg gcggagatga 180  
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<210> 1308  
 <211> 391  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 actaatcact atggggatga gaacactgtt tgcgattgtt tggaggtgta ttctttctta 300  
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<210> 1309  
 <211> 387  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 cattacgaaa aaggagctcg gtacatgat gcggttcaatc ggtgaaaaac cgacaaaagc 180  
 tgatcttcag gacttgatga acgaagcggg tttagatggg gatggaacca tcgatttccc 240  
 tgagttcttg tgcgtaattg ctaanaanca angtcattat caagcgccgc gtcanactaa 300  
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 <212> DNA  
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 canccgcaan gctaacaacg acattacttc catcaciaag caacgggggg nagagttaac 240  
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 tgaccttanc gattcctaatt tggctaanga acttgactan cttatccgca acaagtggat 360  
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<210> 1311  
 <211> 418  
 <212> DNA  
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<223> unsure at all n locations  
 <223> Clone ID: ARABLI-10-Q1-B1-D2

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 ggcttccaca gcagtacatg gtcggccctt gtctagcatc atcggctctt tcagcgggtga 180  
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 acggttacgt ttcgaccgtt gattgtcttt agatcagaat tcattgggta tgtgtgttgg 300  
 tgatggcggt ggttttcaat ccaaagcttg ctttaattaag atctaattcc aacctatcct 360  
 ttgagtttaa aggtttacgg ataataatta ngcagtttgc gtttttgaga tgaagatt 418

<210> 1312  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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 cagcgaactc aatcttgcac caacgtctta cgtgtccaga tttgtgtcca aagctttgca 180  
 aaatcgacga aaagatacag cagattgttc cagctctcct gatatgtcac ctccgttacc 240  
 tcataaacca gccgatctcg agtttgcaaa ggctgaagca tagtgtgtct ttgaaggaaa 300  
 atgactctct acacanacaa ngtagtgaag actccatggg aagctcaaaa catgccctac 360  
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<210> 1313  
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 <212> DNA  
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<223> unsure at all n locations  
 <223> Clone ID: ARABLI-10-Q1-B1-D6

<400> 1313

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 atcgaagatg aatatgattc agcgattcat gcaatctatg gcaaagacgc gtggcctctg 180  
 tcatccagat tgcgtaaaag caagtagtga gcaagaagat tacgatgcgt ctcagctcag 240  
 tatttggtgg ataatgctgg gaaggaagac gaccagngag aaatggatga agcaagctct 300  
 cagttcacta tcganaactt gcatcagtat atggtggaaa atgtctggaa taangangtaa 360  
 gatgtgcang gagaaggaac aaccactcac tgtcaaagac tgccttgaat gtg 413

<210> 1314  
 <211> 392  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 1314

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 gatctcaaca gtgcaacctt ggaagcagat gtagatgttg ttgtgtcacc tccatttgtc 180  
 tacatcgacc aggtcaaadc ctcgttgaca gaccgtattg acatatacagg tcagaactct 240  
 tgggttggga aangtggagc cttcacnggt gaaatcagcg tggaacagct caaagacctt 300  
 ggctgcaagt gggtcattct tgggcattcc gaacggagac atgtcatcgg aagaanaaga 360  
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<210> 1315  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABLI-10-Q1-B1-E5

<400> 1315

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 ttttcttgac gaaggaaacc agtcaccgga agatttctcc gtaaacctca acgccggcga 180  
 agatgacggt gacgaagacg acaataataa caattctgaa gataacaaag ctttttggca 240  
 ggaacacgaa caacttcttc aggggacact gtataggaca agttccattg agacaaagat 300  
 tagacaagct acaaaagaag cgttgaaaca agttaaatct aagggtcttt attgtgtttg 360  
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<210> 1316  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-10-Q1-B1-F4  
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 ctccatcaac tcgttttcct ccaagattca gtctcatgct ctccgaggag ttggtatagg 180  
 cgagtcagat aagaaaaatc ccctgccgcg aggggccgga gaaggagtca aggaagatgc 240  
 gaggagtaag ctgcttcatt tagttttggt ctctcctcag attcctggga atacaggttg 300  
 cattgcaaga acatgtgctg cctcaactgt ttggtccgca tttantcggg ccattaaggt 360  
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 t 421

<210> 1317  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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aaacagaaca gagcaagaac tatacagcca taacaatggc tgtcacaaaa cttattctct 120  
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 aaacatggca tgaacatgca gttgagaacc cagatgaagt cgctgccatg gtggacatga 240  
 gcattcgaaa cagcacagag cggagaagat taggttactt ctctgcgcc accggcaacc 300  
 caatcgacga tttgctggcg tttgcgaccg caaatggcag ctccgtcgca aacgttttagc 360  
 cgattgctca atcggatttg ggcgcaacgc aatcggangc cgcgacggtc gtttcta 417

<210> 1318  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABLI-10-Q1-B1-F8  
 <400> 1318

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 aaaaatagct ttgaacaagt tttctcaata gtcaacaaaa acaatggccg ttgaagctca 180  
 ccatctaaat cctctgttct cttccaacag agaaatgatt catcccgttg aagcaagcgg 240  
 tgtagtctat aacaccaga tgagatacgg caccgttccg acgtttaacc ccaccgtgga 300  
 atgtcaaact tctctgttta acccaatcta caacatctca acaagtcgat cgtttggttc 360  
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<210> 1319  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tcttaccttt ccgatggcac aaatgacaaa atccaatctg tcattgaggc aggtgttggt 180

cctcgactcg tcgagcttct ccagcatcaa tcaccatctg tgcttattcc tgcccttcgt 240  
 agtattggta acattgtcac tggagatgat ctgcagacac agtgtgtaat tagtcatggg 300  
 gcacttctta nccttttgag cttcttgact cacaatcata aagaagagca tcaaaaagga 360  
 agcttgctgg acaatctcaa atatcactgc tggaaacagg gancagattc ag 412

<210> 1320  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 1320

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 gcaaccgggt acaccgaacc agcgaaccag agttcccggt agtcaattcg cgccgccgaa 120  
 ttatcagcaa gctaattgta acctatctgt tgggaggcca tggagcactg gtttgtttga 180  
 ttgtcaagca gaccaagcca atgccgtttt gaccacaatt gtaccttggt taacatttgg 240  
 acaaatagca gaagtgatgg atgaaggaga gatgacttgt cctcttgga ctttcatgta 300  
 cttattgatg atgccggctt tatgctctca ctgggtgatg ggatnaaagt atagagaaaa 360  
 aatgaggaga aaatttaatc cttgtggaag ctccatattc agattgtgcc agtcatgt 418

<210> 1321  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 nnnnnnnnnn nnnacaacac tagaggaatg ggtnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360

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<210> 1322

<211> 392

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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<400> 1322

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ggagagtgat gcatcttgta gcttagtttt gtgtgggaaa tcctctgtgg aaactgaggt 180

agcaaagggt ttgaagaaca agaactctct taaactccca gataatacca cagttncact 240

cattttanaa tcctgagggc taagaaattg ggtaaanaat gatgataaat ccctcaatct 300

ttcantectn aagaaacna atangaactc ancggtttgg gacgggtnc cattttggtc 360

ntccnncgnt tggcctccaa ccaangaggt tt 392

<210> 1323

<211> 427

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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<400> 1323

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tccctcacat gctacacaag tgtcctgact cgatccctga cccaaaggcg gtccagtacg 180

tgcgtaacga ccgtggcacc cccatggtgc tagacaacaa ttactaccgt aacatcctag 240

acaacaaggg tttgctcctt gtggaccatc agctcgaca cgacaaacga accagaccaa 300

tcgttaagaa gatggctaag gaccaaggcc tacttcttca agggagttca ctaagggcaa 360

tccagatntt atccgangaa caaacccctt gactggctct aagggtgaag atnaaggaa 420



caatggt

427

<210> 1324  
<211> 471  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-12-Q1-B1-G3  
  
<400> 1324

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cggttctggt ttcggtgtcg ttctcgcaac acataacgct gattcgggga gacttgcgtc 120  
gaggaaagcg agtgacctcg ggatcngaa ncagaacggg aagatagagt ttgcacagnt 180  
atatggtatg tcagatgcat tgtccttcgg gttaaagaga gcagggttca atggttagcaa 240  
gtacatgccg tttggacccg tcgcaaccgc tataccgtat cttctccgac gcgcttatga 300  
gaaccgggga atgatggcca cggggagctc atgaccgtca actcatgang gatggaactt 360  
aagaggagat taatcgccgg gattgcgtaa agagaagagt atggagccat taaatgaaaa 420  
ttgggaaatg tagatgaata aatttcctcc tatgtagttt aagaaaattg a 471

<210> 1325  
<211> 417  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABLI-12-Q1-B1-G6  
  
<400> 1325

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aaaaaccaga tgcaggtgaa tgtgacggca gatcatcgtg tcattctatgg tgctgatctt 180  
gcacagttct tgcaaacatt ggcaagcatt attgaggacc caaaggacct tacattctag 240  
gccaaattac tgcttttcgc atcccaagtc ttctctgctt ttgattccat gggaagcttg 300  
tatttctgcg gtaatcagtt tccttgatag aacaaacctt ttaaagatta aacataatca 360  
tttctttggt tgagatatat cctccgcaac attttctgca tggaaaaggc cgtccca 417

<210> 1326  
 <211> 404  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-12-Q1-B1-G9

<400> 1326

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gaaaatgggtg gaagctgtgg ctgacaagtt tattgttgtg gctgatgata ccaaactcgt 180
tacaggactc ggtggaagtg gattagctat gccggtggaa gttgttcaat tctgctggaa 240
ctttaatttg attagattgc aagacctctt caaggaattt ggatgtgaat caaagcttag 300
agttgatggg gatggcaagc cttatgtgac tgataacagt aattacatta ttgatttgta 360
ttttaagact ctttgaang atggattcnc tgccgggtaaa gaaa 404
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<210> 1327  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-12-Q1-B1-H1

<400> 1327

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tactcggtt gacttgctc tactacggct cttcgttcgc tcccggatcc agaaagtccg 120
atgagttcga tggatctaata aaccgcgttc gcaccggaat cggatccttg aggaatcgan 180
atattgtgct tgcantgagc cgtttcgaag ttctaaaag tgttccgata tgtgattcga 240
gacactcgga gttgataccg tgtttggtatc ggaaccttca ttaccaagtt gaaattggaa 300
actcaattta tccgttaatg gagcactatg agcatcattg tcctccatca gaacggcggt 360
tcaattgcct tgttccgcct cctggttggt tataanatcc gttaaggtgg cctggtga 418
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<210> 1328  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABLI-12-Q1-B1-H12

<400> 1328

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gggtaatgga ggaggattag ggatggtgat agagtgttcg tcgaggccac agaanaaatc 180  
gacggctcat cacaggaaga cgaggccgaa naagactcan ccttgggaca ttaagagaaa 240  
gcctactgtt tacgctcttc ttctctctct tccggcggaa tggantcccg tttcactctc 300  
gcttctgacg acggtggtgc tgccactgct gcgggaagat ttggttccaa ggcgctgccn 360  
at ttggtang anttacctgc cgaatttgnn ttgtantcta agtttgagaa acttttggtt 420  
ggttg 425

<210> 1329  
<211> 417  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABLI-12-Q1-B1-H5

<400> 1329

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agtggctgag cgtgtgctga gccaacatc attgtcagga ttgcaggac cgacaataag 180  
cccagtgtac tgtacacaaa atggaaaagt atcggttgac tactatgcca tcgtgatttg 240  
tgtacaaaaa aaggccctat acgactctgt gaagcaactt agagcggccg gaggcagtgg 300  
ggtattagtt tcacctttga cctacatitt tgatgaggat actccaagat ggggtcagct 360  
cctganaaac ctccgggatt taaatgcttt ggtaaggaag atgcatatgc tgaacaa 417

<210> 1330  
<211> 423  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-13-Q1-B1-A1

<400> 1330

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caaactcgac ggtggtttcg ctttgtcaat tcgagcttac atagagaaac caaactcttt 180  
ctccaccttc gctaacaaag tcacgggttc tcttcccgtt atcggactcc tcgctcgaat 240  
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agttgggaat aaatgtactc ctgatganc taaagcttct aagagtttca acaacgacga 360  
agnaangnaa gtgaaccctt ggangtgcnt cngtggtgtt gggttgctgc aataggtgca 420  
ngt 423

<210> 1331

<211> 417

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-13-Q1-B1-A10

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tactgaatt ctcaggattg cgaagctcct ctgcttctct tcccttcggc aagaaacttt 120  
cttcgatga gttcgtttcc atcgtctcct tccagacttc tgcaatggga agcagtgggtg 180  
gatacaggaa aggtgtgact gaggccaagc ttaaggtggc cattaatgga ttcggttagga 240  
tcgggaggaa ctctctgaga tgttggcatg gtcgcaagga ctctcctctt gatatcattg 300  
ccattaaaga cactgggtgg cgtcaaaca ggcttcccaa ttacttaaata acnaactcca 360  
atccccgggn aacctttgaa tgctgaatg tccaaaacct ttctgggaga anaactg 417

<210> 1332

<211> 493

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-13-Q1-B1-A3

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nnnnnnnnnn nnnnnnnnnnn nntctgtttc tgaatcaaca gctttgcttt gtctcaaaga 180

gctttatctt cttctctatc gttccaagat ccttggtgat tactgcgctc aatctagtaa 240

gttatggctc ttgttacaaa acccttcgat ttctgggtat ttccatgatt tgaatcaaga 300

aatttcgact cttttggatg ttttacctgt caatgatctt ggtctaagcg atgacattag 360

agagcaaadc gagttgttgc agaagacagt caaggaaagc gaagattgta tatcgataag 420

aacgatgagt cattacgtga atcaatccaa tccgtttcct gatggggttg agaacggtaa 480

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<210> 1333

<211> 453

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-13-Q1-B1-A5

<400> 1333

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actttgaccg gaaagaccat cacccttgaa gtggaaagct ccgacaccat tgacaacgctc 120

aaggccaaga tccaggacaa ggaaggtatt cctccggacc agcagcgtct catcttcgct 180

ggaaagcagc ttgaggatgg acgtactttg gccgactaca acatccagaa ggagtctact 240

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aagttcaatg tttccgtttc atgtaaaact ttgggtggtt gtgttttggg ggccttgtat 360

aaaccctgat gaataaantg tccaacaagt tccgttcctg gtaaccctt ccttccaaat 420

gacaagtcca acttcttctt taaaaaaaaa aan 453

<210> 1334

<211> 461

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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<400> 1334

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tagggatcga tttcggcgctc aaacgctgctc gttttcgacc atctcctact tactactact 180  
cagctgcttc tgcctttctan ggttctttct ccgttcaccc tccgccgcac gagttgtcca 240  
gctccgccgc attctttctgt ctccagatca ccggctttta gcaaattccgg ctgcttttca 300  
ctctaattcg taaaccactt gtggggantt gagcatcttt tacattctcc aaaatctctg 360  
ctttenaggg ttttggtgag ttttggtggg atgaatantg tgttcagtga ttagattcng 420  
aatggataaa gtcgctaag ctcaatagca gtcaanaagt c 461

<210> 1335

<211> 475

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-13-Q1-B1-B3

<400> 1335

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ctttcagctc cagttcaaaa ttttattcac ctaaaccatt cttgtccaag tagtatatta 180  
acgtattcaa gaaacagcac ttacttcacc aatctcaaaa cacttttgct ctctctctct 240  
tcccggaacg cttcatactc taccggattc caaactgcca cggcgggaca agctcccgac 300  
cgtgtcaccg gacttttctt ttgtcgcgga gacgtctcac aagaagtttg ccgtaactgc 360  
gtcgcttttt ccgtcaaagg agactttata atggngtccg tataacaaaa gaagtccgtg 420  
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<210> 1336

<211> 480

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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aatctgatcc aatggagaaa gacgatgcaa cggcgctggtt ttcacctagc ttcagtactt 180  
attccggcga tagactcgtc gaaatcgccg aacgagtcctg ttacaaagag aaatcagacg 240  
ccgaattcga gtttttcgacg gcggcgactt cttcttcctg tgacgggtgga ctagttttcc 300  
ctgtatttaa caagaatcta atctccggag atgtttctcc ggagaaagta attccgttga 360  
aggatctatt cctccgtgaa cgtaacgacg aacaaccacc gcaacaaaca tactcatccg 420  
tcttccgacg aagaagaaga agacgacgag tttgattcga ttccgagcga aatctattgg 480

<210> 1337

<211> 420

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-13-Q1-B1-B5

<400> 1337

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gcaagcattg agatcagtgg agcancatct gaatctggaa aagttgtatg tactaggcac 180  
cagttgtgtg gacaacggna cacgatatgg actagacang tttctgaaag cagctagtaa 240  
agagccanag actgttctcc attatgaatt tatgcaagat tacaaggtcc aactcaaaca 300  
cntggatgga cacattgaaa gaggttcctt atntctctct aactgcaaac gaattagtan 360  
atgtcatanc tccatcgtgt tacaagctgc nttgattaca caaatgcatt aacggatttg 420

<210> 1338

<211> 420

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABLI-13-Q1-B1-B7

<400> 1338

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 cgtcggacaa gaattcctct ccgtcttatc cgatcgagac ttcccttata gctccatcaa 120  
 gatgcttgca tcgaaacgct ccgcagggaa gcgtgttgcc ttcgatggcc atgaatacac 180  
 ggtggaggag ctacggcg atagcttcaa cgggtgtagac atagctttgt tcagtgtctg 240  
 tggatccata agcaaagagt ttggtcctct ggcgggcgag aaaggaacca ttgttgttga 300  
 taatagctcg gcttttaaaa tggttgatgg agttccgctt gtgattcctg aagtgaatcc 360  
 agaagcaatg aaagggatca aagttggaat gggcaaaggg gctttgattg caaacctaa 420

<210> 1339  
 <211> 433  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-13-Q1-B1-C10

<400> 1339

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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnntct gnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnaacca aattcgtctc cacgattgtt tcttctgagt 240  
 tttgattttt cagatctcgc ttcttttccc gatttgttca aatcatcatg ggcttaacct 300  
 ggatggtata aatggggatt aaatttcatt ccacaaaagc tccgaagttt taatnatta 360  
 atnggctaac tggttaacn ggtggtataa aaanaaanct tgtggtgtgg tgggttcccc 420  
 naagttttca agg 433

<210> 1340  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-13-Q1-B1-C11

<400> 1340

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catacaagat cgccgctcat gcagctgac tagccaaaca gcatccacat gctcaggcat 120  
 gggacnatgc gctgagcaaa ggcggtttg agtttagatg gatggaccaa tttgctctgt 180  
 cgttggaccc catgactgct atgtctttcc atgatgaaac tcttcagct gatggagcca 240  
 aggttgcaca cttttgctcc atgtgtggac caaaattctg ctctatgaag ataacagaag 300  
 acatccgaaa gtatgcanag gagaatggtt atggcagtgc tgaagaagca atcagacaag 360  
 gaatgggatg ctatgagtga agaattcaaa catcgcaang aaaaccatta a 411

<210> 1341  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-13-Q1-B1-C12  
  
 <400> 1341

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 ccgcagcggc agagaagtcc tcaaagctcc ccttgacctc cccgattcgg ngactgttgc 180  
 tgatctgcaa gaagcgtttc ataagagagc taagaagttt taccgctcga ggcaaagact 240  
 gactcttccc gtgactcctg gatngaagga caaacctgtt gtcctcaata acaagaaatc 300  
 actgaaggaa tactgtgatg gaaacaacaa ctcttaact gtaatcttca aaagacctgg 360  
 gggcacaagt ttctaacgc aaaactctc ctctccaat aaccttggcc tctcctaanc 420  
 aacntgtct ttaacaactt cccggttaaa aanttccttg gggtaat 467

<210> 1342  
 <211> 476  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-13-Q1-B1-C3  
  
 <400> 1342

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 ctctcatttt cttcttctcc aagccccct cctttctata tatatctgaa attggtcttt 120

tataaaacaa acttccattht ttcgtatggc tgctttctttt cttacaatgg acaatagcag 180  
aaccagacaa aacatgaatg gttctgctaa ttggtcacaa caatccggaa gaacatctac 240  
ttctctcttg gaagatcttg agataccaaa gttcagatct tttgctcctt cttcaatctc 300  
tatctctcct tctcttgtct ctcttccac ttgtttcagt cctctctttt ttctcgattc 360  
ccctgctttt gtctcctcct ctgctaactg tctagcttct ccaaccacag gagctttaat 420  
cacaaaacgt aactaaccag aaaggataaa atgaaggaga caaggagcaa caacaa 476

<210> 1343  
<211> 433  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-13-Q1-B1-C7  
<400> 1343

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tgaaagaagc cacagttatt actccttccg accaaacacc ttctttctgtt ctgtctctct 120  
ccgctttaga ttctcagctt ttctcctgat tcaccattga atacctctc gtttaccac 180  
ccgtttccga cccggagtat tctctctccg gtcgtctcaa atccgctctc tctcgcgctc 240  
tcgttcccta ctccctttc tccggcccg tccgagaaaa acccgacggc ngcggaggtc 300  
tccgangtca aattgccgtg ggcaaagggtg ctcttggttc ctgaaaccgc tttctgaaa 360  
tcctcacgtn gccnttgact ttcaagaaaa cctccccggg aacgttaact aactgggaga 420  
aaagcttcct ttc 433

<210> 1344  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-13-Q1-B1-C8  
<400> 1344

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aaccttcgtc atcttccgac gcctctctct ctgcctcagc ttgcntgtcc aaacacantg 120

gtgnatatca anatggnat gangttgtca ttgtcgnggc acaaaggact gcactttgca 180  
 angcaanacg tgnacgcttc aangatacat ttcnagacga gttcttgctt ctgtattgag 240  
 agcattgata ganaaaacta atgtaaaccc aagtgaagtt ggtgacattg taatgggtac 300  
 tgttttggga ccaaggatct cagagagcca tgtgaatgca ngatggctgc gttctangct 360  
 ggtttccccg aaactgttcc catcangaat cgtgaacana cagtgttcat ctgggcttca 420  
 ngctgt 426

<210> 1345  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABLI-13-Q1-B1-D11  
 <400> 1345

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 accgtcgccg gcgtctgcag cgtctgttct atcaattcct cgccgtctct ctgaaagaaa 120  
 aaaaggaacc acctttctct ctctgttttg ctcgatctgt tgtaatttac tctgtagcga 180  
 tcatcagatc gccggcgttt taaaccgcca tgaaactctc cgacgttgga ttagacgttg 240  
 tcaaaactcc gagattgggt aaattgattg cgtttgcgtt tctctcaatc tcaacaattt 300  
 ttctcttcaa tcaattctca gattccttct cttaaccaat ctcttctttt tcccatctcc 360  
 tctttcttca aacgtcaacc gaaagctaata caaaaccaac ataacatccg gtcg 414

<210> 1346  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-13-Q1-B1-D3  
 <400> 1346

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 ctcttccacc tttagatttc tcgaggctct ttctttaatt ttactgctaa atagtagtgt 120  
 ttactgtctt cagccgccgt cgccggattc cattatcgaa ggcgacggaa gcagtatctt 180

aggttttgtc cgacgaagct ccgtttgatt gttatcggtt ccgttgtatt cgtcgatctt 240  
ccattttcgc atttgttttc tatatccgaa gatgggaagc agtccagctc cgtttgccga 300  
tattggcaag aaagccaaag atctcctaaa caaggattac atttttgacc acaagtttac 360  
tctcacaatg ctgagtgcta cangaacgga atttgtggct actggggttg aagaaggatg 420  
atttcctttt tgggcgatat aagcacacta tataaaggtc aaaacaccat tgttg 475

<210> 1347  
<211> 483  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABLI-13-Q1-B1-D4

<400> 1347

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agcgaggtct ctctatctct ctctttcgta cacttcgcgc ttctcttctt gtcagaggcg 120  
tttctcatgg ctctctttac tctctccgtt gatgtgaaga gctcttcagc gacctctcat 180  
gatgtttcga agagggtaat gcagagttca cagctcaaaa taaacaaagg cttttttgca 240  
tctgttaata cacaagaaga taaacccttt gatttcttcc gactctctt tgagggggtt 300  
atagcaggag gtacagctgg agttgtagtt gaaacagctt tatacccaat tgatactatt 360  
aagactagac ttcaggcagc tcgtggaggt gggnaaaatt gttttgaang gtctttattc 420  
aggattagct ggaaatatcg ctggtgtcnt accggcttcg gctttatttg ttggagtta 480  
cna 483

<210> 1348  
<211> 491  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABLI-13-Q1-B1-D6

<400> 1348

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aattcggctc gagccgcact gcaagcactt tggcaattgc caagggttaa gaactcgctg 120

ttagcattga ggggaagagt gtagaggaaa agaaagggtt attggctaaa tgtgctgcta 180  
 cgactctctc atctaagctt atcgggtggag aaaaggagtt ttttgctaca atgggttggtg 240  
 atgctgttat ggccattggg aatgacgaca ggctaaatct gattgggatac aagaaggttc 300  
 ctggtggcaa tatgcgagac tctttcctcg ttgatggtgt agctttcaaa aaaacattct 360  
 cgtatgctgg ttttgagcaa cagccaaaga aatttcttaa ccccaaaatt ctcttgctta 420  
 acatcgaatt ggagttgaaa tctgagaagg aaaacgctga aattaggctg tcagattcat 480  
 cacagtacca g 491

<210> 1349  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABLI-13-Q1-B1-D8  
 <400> 1349

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 caaaaggaaa aactaaaaag ccgatcttgg cttttttggt tctgagtgc tctcgatact 120  
 tggaagcatt ctttggtgag gctgattcat tctcatctgt gaaagtcttt ggcttttgaa 180  
 gcaatactat ggaaggaatt cagcatccta tacctcgac tgtcgaagag gtttttagcg 240  
 actttcgtgg tcgtagagct ggtctcatca aggctctctc tactgatgta cagaagtttt 300  
 accatcagtg tgaccctgag aaggaaaact tgtgtcttta tggacttcca aatgaagaca 360  
 tgggagggtta atcttcccg tggaggaggtc cctcctgagc ttctgaacc agcgtaggc 420  
 atca 424

<210> 1350  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-13-Q1-B1-E1  
 <400> 1350

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 agcaaatect gatttactct catcctcatc atctctcatc atcgagattc atagtctctt 120

ttgccgcttg gattcttcca aggttagtga gctgctatgg caactcatca gcaaacgcaa 180  
 cctccttccg attttcccg tcttgccgat gaaaattccc agattccaga ggctactaag 240  
 cctgctaattg aggttcagca agctaccata gctcaggatc ctccaacatc tgtgtttaag 300  
 aattctgaac caatacggga ggatnaaatt cagaacgcta tcaaattcct ttcgcaaccg 360  
 agggttanag gntctcctgt tatacataga agatcttttc ntgagangaa aggtctcact 420  
 aaaaaa 425

<210> 1351  
 <211> 360  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-13-Q1-B1-E5  
 <400> 1351

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 gatgcaccat ctgaagcagt gtgtgtgccg tgtggacatg tcgccgatg catttcttgc 120  
 ttgaaagaga ttgaaaacaa gaaaatggga tgtcctgttt gtcgcgcaa cattgatcag 180  
 gtcattaagc tatatcatgt ttgaagcata tctcctctat ggctggaaga tattgaaact 240  
 atctcctatt ttttactttg tctttaaaag ataactacaa atttttttat tgtgtgtatg 300  
 ttatgtggtg aagtcaaaga agtcgaaata tagaatcacg acaanaaaaa aaaaaaaggg 360

<210> 1352  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABLI-13-Q1-B1-E8  
 <400> 1352

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 attcccattt cgcccctatc cgaaaaatgg ttgaagctca atcatggaca acgcggcgga 120  
 tgagcaatcc tagattcgac gccgccgcaa ccgccgcacc aaccatcgta gacatccccg 180  
 gaacaccacc acactcctcc gcttcttcac cactcaaacc cttcttctc tcttccccca 240

ccgtatcacc aacaatcctc acggcggcta taatcgccgc ctggtttggc tcaaatatag 300  
gagtcctcct cttaaacaaa taccttctct tctactacgg ttcccggttac ccaatcttcc 360  
tcaccatgac acacatgtta tcatgcgccg cctatagctc cgccgtaatc aatatcgccg 420  
gaatc 425

<210> 1353  
<211> 423  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-13-Q1-B1-F1  
<400> 1353

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gccaagaacg ttccaggaca atcactagca gctactacag aggagctcat gggatcattg 120  
tcacttatga tgtcacagac ctagagagct tcaacaacgt caaacaatgg ctgaatgaaa 180  
ttgaccgtta cgctagcgaa aatgtgaaca agctactggg tgggaacaag aacgatctca 240  
cttcacagaa agttgtatcc actgagacag ctaaggcttt tgcagatgaa cttgggattc 300  
cattcctgga aacaagtgtc aaaaatgcaa ccaatgtgga agaagctttc atggctatga 360  
ctgctgcaat taagacaaga atggctaacc aaccagctgg aggtgccaag ccancaacgg 420  
tcc 423

<210> 1354  
<211> 474  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-13-Q1-B1-F4  
<400> 1354

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gacggacact tgtcagcggc tgaactaaag ggcgttatca ttgggatcag ctttgaggat 120  
atagattttg acaaggatga tgctgtggga aaagttctcc aagattttga taagactctt 180  
gatgagcaag ttgatcaaga agagtttgct cgtggaatta agcaatggct tatccaggca 240

atgggaggtg ctccatctgg tctgaagct ggccctcgaa caatgaaatt ccttgacaat 300  
 ttccatgtgc aaacaaagag agagcatgct ttgttgggag ataacgagaa tggtgagaat 360  
 gatgaggaag gcggtgaggt tgcagacca aaatggatca ccattaaagc agctctgctg 420  
 ctactgttag gagctgccaan tgcantgca tttgctgac ctttantccg acac 474

<210> 1355  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABLI-13-Q1-B1-F8  
 <400> 1355

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 cgaactgtgg atcccttgaa tgcttcccca agggatcgg aagtctcgtg aagctcgaag 120  
 ttctgttggg atttaagcca gccaggcca acaatgggtg caagctcagt gaagtgaaaa 180  
 atctcacaaa ccttcggaaa cttggtcttt ctctgactcg tggcgatcag atagaagagg 240  
 aggagcttga ttctttgata aacctaagca agctgatgtc catttcgac aactgctatg 300  
 atagctacgg cgatgatctc ataacaaaa tagacgcct tactcctcca caccaagctc 360  
 catgagcttt ctctacaatt ctatcctgga aagtcgagtc catcgtgggt gagtcctcac 420  
 aagc 424

<210> 1356  
 <211> 449  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-13-Q1-B1-G1  
 <400> 1356

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 tttttaattt ttatcctcgn tttttcaatt cnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn ttacgaatct tttgttccag atcgtgagag aggaggagtt 240  
 ggaagaatga agatgactat tgggtctttg ttccaancct aattttgcag attaatttcg 300



tttttgttga tttctgtttt ggggttttgcn ttgctgattc cngtggatta aanggttcct 360  
 tttggacaac acaaatttgt tgggtttttt tttgggggaa aagagaatta aaantttctc 420  
 cnttagaatc ggcgtttggg ttgaaaaaa 449

<210> 1357  
 <211> 444  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-13-Q1-B1-G10  
 <400> 1357

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 aaaacaatgg cggataagct cactgacgat cagattacag aatacaggga atctttcagg 120  
 ttattcgaca agaatggtga tggttccatt acgaaaaagg agctcggtag catgatgcgt 180  
 tcaatcgggtg aaaaaccgac aaaagctgat cttcaggact tgatgaacga agcggattta 240  
 gatggtgatg gaaccatcga tttccctgag ttcttgtgcg taatggctaa gaatcaaggt 300  
 catgatcaag cgccgcgtca cactaaaaaa acaatggcgg ataagctcac tgacgatnag 360  
 atttacagag tacaagggga atccttcaag gttattcgac aagaatggtg aatnggttca 420  
 attacgaaaa aaaggagct ccgt 444

<210> 1358  
 <211> 396  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-13-Q1-B1-G11  
 <400> 1358

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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnc cgtcgtaatc attctgatga ttctgattca gagtcttctg 240  
 aagatgatag aagacagaag cggaggaaca aagtcgcagc ttcttctgac tcagaagcaa 300

atgtttcagg cgatgatgtt tcacgcgttg gacgtggttc ttccaagcgg tctgagaaga 360  
aagagcagga aacctcatca caaggaaana acgaaa 396

<210> 1359  
<211> 427  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABLI-13-Q1-B1-G2

<400> 1359

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn ncaatcgaac 120  
tctgtataca actctttcct caagtgtttc tccgacaaga cgaaatctcc acaatcccaa 180  
atcactgaca atgtcttctc tcagacaaac cctgctttct cctccgttct tctgtcttac 240  
atccgcaatg cgagggtcaa cacttcctct actcttaaac ccaccatcat aatcactcct 300  
cgctccgaga gccacgtcag cgccgccgtc acttgc tcaa aaaccctaaa tttcctcctc 360  
aaaatccgaa gcggcgggca tgactacgat ggtctctctt acatttccga caaaccantt 420  
ttcaatc 427

<210> 1360  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: ARABLI-13-Q1-B1-G6

<400> 1360

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ggacaaactt tgtcgactgc ttggagaaat tctttgttga tcctcaaaca gaaggtatcg 180  
ttctcattgg agaaatcgga ggcactgcag aagaagatgc tgcagcattg ataaaggcaa 240  
gtggtactga gaagcctgtt gttgctttta ttgctggact tactgcacca ccgggtcgtc 300  
gaatgggtca tgccggagcc attgtttccg gtggtaaagg tacggctcan gacaaaatta 360

agagtttgaa tgatgctggg agtgaagggtt gttgaatctc cggctaaaga ttggattaac 420

gatg 424

<210> 1361

<211> 63

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-13-Q1-B1-G8

<400> 1361

ctcgnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nttcnaaatn 60

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<210> 1362

<211> 386

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-13-Q1-B1-G9

<400> 1362

ctcgagctgg aactaaagga tatatatggc tgggtttatg aagttaggat gcttgggtctt 60

tgtcttcgtg attgcccgcg gtccaatcac agcaaaggcg gctctgagct gtggcgaagt 120

taacagcaat ttgaaaccgt gcaactggcta cttgaccaat ggtgggtatca ctagcccagg 180

cccacagtgc tgcaatggtg ttagaaagct taacggcatg gtccttataa ccctagaccg 240

tcggcaagca tgtcgttgca ttaaaaatgc cgctagaaac gtcggccctg gtctcaacgc 300

tgaccgtgct gctgggattc ctatgagatg cggaatcaaa ataccttaca gtanccaaat 360

cangttcaac aacangtgca acaacg 386

<210> 1363

<211> 461

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-13-Q1-B1-H11

<400> 1363

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attcggctcg agcttggtta cattctcact tcacagaaag ttgtatccac tgagacagct 120  
aaggctttcg ctgatgaact tgggatccca ttcttggaag caagtgctaa gaatgctacc 180  
aatgtcgaag aagctttcat ggccatgact gctgcaatca agaccagaat ggcgagccaa 240  
cctgcaggag gatctaagcc accaacgggc cagatccgag gacaacctgt taaccagcaa 300  
tcaggctgct gtcctcttta attcgttttg gtaacactta accatattat gtcattcggt 360  
tgcatgtaag aaatctaaac aacgttgctt cttaaactct ttggaattgg nttttcaatt 420  
tttcaattgt gtccaaaaag cctttaaatt ccttggtaan g 461

<210> 1364

<211> 468

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-13-Q1-B1-H2

<400> 1364

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agcaacatag ctacaagggtg aagtttatgt gcagctatgg cggcaagatt cagccacggc 120  
ctcacgataa tcagctcact tacgtaaacy gagaaacgaa gattctttcc gttgatcgcg 180  
ggattagatt ccctgtttta gttccaaac tctccaccgt atgcggcggc ggtgatggcg 240  
gcggaggaga agttacgttt aagtatcagc ttccgggaga agacttagac gctttgatct 300  
cgtttacgaa cgatgatgat ctggagcata tgatgcacga gtacgatcgc ttgcttcgtt 360  
tgtcgtctaa gccagcgagg atgcgtttgt ttctcttccc ggcttcttct gggatttggt 420  
tctcaaaagt tcgactcaat cggatcgaga tcgcctcgtc naaggcgt 468

<210> 1365

<211> 447

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-13-Q1-B1-H4

<400> 1365

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agaaaaaaca gagcatactt ttgcaaaaag cagagcttgg agcgctttct tgtcatctaa 120

aattcaaagg cagagacgat gggagatgta gttttgttca tagatgaaac atatttgaaa 180

tcgagtttta atcgctgtag aatctgtcac gaagaagaag ctgagagcta ctttgaagct 240

ccttgtttctt gttcaggaac catcaagttc gctcacagag attgcataca acgatgggtg 300

gatgagaaaag gaaacacaat ttgtgaaatt tgtctccagt ttccggttat tttgttgata 360

aagcatgcat ttgatgcggt ttatggaact gaagagtatc cctatacaat attcacgggc 420

ttaacattga angctataag gcatact 447

<210> 1366

<211> 421

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABLI-15-Q1-B1-D6

<400> 1366

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gtaaacaaaa actattttgt ctagttgtca ttttttcttg tcttgtccta atttacaact 120

tgtcatttca atacaaaata ttgaaaaagg agaaacaaat tgaagaaaaa aaacccaaaaa 180

aaaagaattt gtcacaagat gttgataatc gcctgcttct tggaacaccc taacgaaaac 240

aatcatctt cccgagatct cttcttgcca acacactcta ctgcgacgtc gtttggtttc 300

tcgttactca cattgaaaat gttgactccg aatagcctaa ccacagtctg aaccggacta 360

gaccggactt tccaagtgga tatacaattg ccggtctggg tccggttgat ttcccgaac 420

a 421

<210> 1367

<211> 425

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-15-Q1-B1-D7

<400> 1367

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 cgcgtttcag tcttctctat ataaacttgt ttcattcanc catcaaaatc ccactcaa at 120  
 tctgtttcag tgttcttcaa attctcaatc tttctctcaa ttcattctaaa gggttcctca 180  
 aagtttcaat ctttctctct gaatctaaac catggctcgt tgtagcaaca atctcgtagg 240  
 gatactcaat ttcttagtat ttcttctctc gatcccaatc ttagctgggtg gaatctgggt 300  
 aagccaaaaa ggggtcaacag agtgtgaaag attcctaaga caaaacagtg attgctcctg 360  
 ggtgttttcc ttaatgggtg tagcaatanc tgggtcta at aagttcatgt tgtanaagtc 420  
 acatg 425

<210> 1368  
 <211> 459  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-D9

<400> 1368

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 agagaagaac ggatgctcca tctgaaggag gtgaaggctc tgggtctcgt gaagctggtc 180  
 cagtctcang tgggtggacgt ggttcacagc gaggtgggtt ccagcaaggg angangacaa 240  
 caccaaggtg gaaaggggtt atactcctca acctcaacaa gggangtcct ggtggtcctt 300  
 ggatatgggc aaccaacaca acaacaacaa cagtatggaa ggaccacaat ntttaccang 360  
 ggaaaangat aanggaggac ctctcaaca aanggangtc caagaanggn atgggcagtg 420  
 gcccttgnag gttgaccttc cttctggacc accgcanaa 459

<210> 1369  
 <211> 132  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-E1

<400> 1369

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 ctcgtttttc tctcnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn ng 132

<210> 1370  
 <211> 468  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-E11  
 <400> 1370

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 gcattagatt ggattgaaat ggctacggag cctacaagga gctgggtcca gatacggcag 120  
 cagaaaccgg ataaatcaag ccctactaaa aagggacaag agggaaatgt gaagaatctt 180  
 gggagacctc ctatgaatga tgcaccatct aatgctacta aacagaaaagt tgctgcagcg 240  
 aagcaatata tcgagaatca ttataaaatt cagaagaaga gtctccagga aagaaaagag 300  
 cgtcggagca tccttgnac aaaaacctaa cctgatgctg atgttaacgg tttgaagaca 360  
 agantgggta tattaaagaa cctttgagaa aaaagggaaat tggantanat gctccnacia 420  
 aggacaanaa attggggggt gatncctttg aacggcttac cancattg 468

<210> 1371  
 <211> 460  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-E12  
 <400> 1371

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 cttccttctt cttcaatggg cgctctcttc cttctctgaa cccgatctct ccgtttctgt 120  
 tcctccccac aagtagatcc ttcgctctcg tcgtcaagag cactctcggt acaaccacct 180  
 tgcattcaga aggaatggag acaaactctt acttaggatg actttaagtg gggatagctc 240  
 ggaaactgta gagatgactt caactgatat gattttcgag ccgattttgg agcatggagt 300

tttccggttt gattgntccg ttgaccatag gaangntgct tttcctantg tttcatttaa 360  
gaacagcaaa gaccgggaag ttcctantgt gagtcacatt gttccagcat atattcctaa 420  
ttgtggttgt cctcaggacc aacaagttgt cacctttgag 460

<210> 1372  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABLI-15-Q1-B1-E5  
<400> 1372

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tggggaataa cgggaaacaa agggagatgc tacgatttct ggatggattt cagtgaatgt 120  
atgtctcact gcagagagcc caaagattgt acccttcttc gtgaagatta cctcgagtgt 180  
ctccaccatt ccaaagagtt tcaaagaagg aacaggatat acaaggagga gcagcgtaaa 240  
ctaagagcag cttcgaggaa aggtgaagaa gccggagatg ggactcacia ccatcactaa 300  
gtctcaacaa tctccttca agcttcatcc gattccagag aagaataata aaaggttcat 360  
gggaagattt tgtatcttgg gaatctctaa acgctttgat tgtttttcaa ttttcaattt 420  
aacc 424

<210> 1373  
<211> 429  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-15-Q1-B1-E7  
<400> 1373

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ataaaaagaa gcttttttaa aactttttcc atggctggaa gtgaagaagt taatcttatt 120  
gagagcaaga cagtggttcc tctcaatata tgggttctaa tatccaactt taagctagct 180  
tacaatctcc tgcgtcgccc tgacggaact tttaaccgtc atctcgaga gtttctagac 240  
cggaaggtcc ctgcaaagtc caaccctgtt aatgggggtct tctcttttga tgtgatcatc 300



gatcgccaaa ctaatttgct tagcaagagt ttacaagacc agctgatgct gggcacttca 360  
 ccaaagtatt actggatcta cagaatcctg gttgatgggt gaaaatagtg ccctgttaat 420  
 tgtcntcct 429

<210> 1374  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-E8  
 <400> 1374

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 ttcaagatgt ggaggagggt gaagggtttt tgtctaggag tttggagggg aagaaggcga 120  
 cggatttgag gttggcggcg attgcggttg ggacgtcgag tcgtggtggg ttggggaagc 180  
 ttcagattcg tgggagtggg tttgagagta aggtgactga tggttggtctt ggtgctgttg 240  
 ctcatggttg tccatctctt aggattgttt ctttatggaa cttgcctgct gttagtgatt 300  
 tgggtttgtc tgagatcgca cggtcatgcc cgatgattga aaaacttgac ctttcacggt 360  
 gtcctggaat aactgacagt ggattgggtg ctantgctga gaactgtgtg aatcct 416

<210> 1375  
 <211> 452  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-F11  
 <400> 1375

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 attcattcgg atcaacatga aagcccaact acattgccag aatttanata ttggaaagag 120  
 gtttacctcc gtgcttctat ggtacaatcc tcttcccgcg gagcctcctt tcttctcggt 180  
 ccgcagagac aaaatgtagg actggtgcc aacagttaatc acggnagaaa ggactcantg 240  
 cgccaanatc actaactnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
 nnctgtcttt tctgntatac ttaagtnnac tttccccggt tccgttgnta ctgngggcctt 360

taacgcaatt gatcgggtta nccaaatata ccttcaaaca caacataggt ngtcnanang 420  
 atttnggnta accgncaaaa gcacgaaaag cc 452

<210> 1376  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-F6  
 <400> 1376

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 ttttctgggt gcagcttcaa aaactgttct cattgacttc atctcttccc ctgaagtgaa 120  
 cttctttaag aaaattgctg gtcggttcgg gcgtaatgga ccaagtcttg tgttccgggt 180  
 tcttggtcaa gacgagttcg agccaacgac aaacagaact tacggctcta tcttgagtaa 240  
 cttgactttt gtcaagacgt ttgcttcagg gattcttgtc cccaagtctt acatattgcc 300  
 acttgatgac cagcagtact tgcttcctca tacatccttg gttcaagatg ctcacaaaagc 360  
 angattanaa gtttttgtgt caggttttgc aaaatgatat tgatattgca cacyacta 418

<210> 1377  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223>  
 <400> 1377

ctcgagaatc acagaattgg tgtggcaaaa gataagtgat cctgaaagca ta 60  
 acttaaacag gtctacacag accattctat caatgtggat aaagtattc cacgtattgt 120  
 ggaggtcaca cagcatccgg ctgctgcagc atcgtttgct tcaatcatgc ttgctcctgg 180  
 tggagagcta tctttctccg aagctttatc taggtgtaag gaaaacaatg ttcagatatg 240  
 tctcatgtat ggaagagaag atccatgggt gagaccgta tggggaaaga agataaagaa 300  
 ggaaatcccc aacgctccat actacgagat cagcccagcg ggtcactgcc cacacgatga 360  
 agtccctgag gtggtgaact atctgatgcg cgggtggatn aagcacctgg agtctggt 418

<210> 1378  
 <211> 133  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-G11  
  
 <400> 1378  
  
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 ttccatttaa atattcgacc tnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 120  
  
 nnnnnnnnnnn nnn 133

<210> 1379  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-G2  
  
 <400> 1379  
  
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 agctaacgtg atcggaactg gaagctccgg tgtagtttac agagtcacaa tcccgctccgg 120  
  
 tgaaacttta gctgtgaaga aaatgtgggtc aaaggaagaa aacagagcgt ttaactcaga 180  
  
 gatcaacact cttggatcga ttcgacatag gaacataatc cgtcttttgg gttgggtgttc 240  
  
 gaatcggaat ctgaagcttt tgttctatga ttatcttcct aacggaagtt taagctctct 300  
  
 gcttcacggt gccggtaaag gaagtggagg agctgattgg gaagcacgtt acgacgtcgt 360  
  
 ttttaagcgtt gcacatgcac taacctancc tcatcatgaa tggctctcct cccgantcct 420  
  
 a 421

<210> 1380  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: ARABLI-15-Q1-B1-G3  
  
 <400> 1380

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agctgcaaga ggccttgagt acttgcatga aaaagctaata cctcacatca ttcaccgtga 120  
cattaaatcc agcaatgtcc tcctctttga agatgatgtt gccaaaattg ctgactttga 180  
tctctctaata caagctcctg atatggcagc tcgccttcata tccacccgag ttcttgggac 240  
ttttggttac catgcccctg aatatgcaat gaccgggcag ttaaatacca agagtgatgt 300  
ctacagcttt ggagtgtgtc tactcgaact tcttacaggt cgaaagcctg ttgatcatag 360  
actaccaga ggccagcaaa gtttagtcac atggggctac acctaaactg agtgaaagac 420  
a 421

<210> 1381  
<211> 325  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-15-Q1-B1-G7  
<400> 1381

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ttagtgaaaa tatgtgttct cgccaacgtc tccaagaaca caagttccat gcactctctt 180  
ccctccaata aaagtttcta tttctttgta gtttattggt gtgagacaat ctcataccaa 240  
aatattgtac ctctacttgc ttgtcttaaa caaatctatc atcaagttta tccccaaaaa 300  
aaanannnnn naaaaaaaaa agggg 325

<210> 1382  
<211> 447  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-15-Q1-B1-G9  
<400> 1382

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tttttttgtt ttcttctcta ctggtttcgc ttttcgagct tctcgtctcc gttaatcggt 120

aaatctagct cattgatccg atatccattg ttttctctcg ccggcgcgtc attgtcattc 180  
 gtcgctcgagt tctgattggt ttaactatgg aagctcgctg tggagtctaa ttcattattg 240  
 agcttgagga ttggttcggg tgatgggtctt ttccaccgtt tgaaagagtt cntcagttta 300  
 acatccnggt gttggatcna gtcacctgta ttgaaagtgg gaaaaaacta acttngtgaa 360  
 ncaangtcnc aaagggntgt gaatttttgg ccncaaaatc aagtnaantt agcntgnan 420  
 ttctaataag acccnaatgg gaattgg 447

<210> 1383  
 <211> 460  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABLI-15-Q1-B1-H10

<400> 1383

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 ttcgataaga atggcaagat ttatgagcat aaagtcgata acatagccat taattcgcct 180  
 ccaaagtttc aaatgctcac tgttcaagag cttgttgaag ccattagctg cccttcgact 240  
 cccaagccga cctactttga gttcggagat tgattcatca tcatcgtctg aaacatcatg 300  
 ctggtgttat gtatactagt agtcttttgt gtggttataa atagagtggg actgtaatat 360  
 agatgaagaa ggaacgattt aaaataaacc caatagcatg aatacattac acgctttttt 420  
 tgcgtataat aatcaataaa acgcctatat gtacatataa 460

<210> 1384  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-H6

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 aaaacgcttc cgtttcgaat cggtcatggg ttcgatctac atcgtttaga gccagggtat 180

cctctgatca tCGgtgggat tgTtattcct catgatagag gctgcgaagc tCactccgat 240  
 ggCgatgtgt tacttcattg tgtagtggat gcaattttgg gagcactagg gcttccagat 300  
 atagtcagat ttccctgact ctgatnctaa aatgggaaag ggagctgctc ntctgtattc 360  
 atcaangaaa gctgtgngac tcatggacna angcanggta tgacataggg aaaacctaga 420  
 c 421

<210> 1385  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-15-Q1-B1-H7

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 tcgatgtcga ttctcaggag actgttgaga atgttaangc cttgctcgag gttgagtcca 180  
 atgttccgat tcagcagcag cagctgttgt ataatggaaa cgagatggga aattccgata 240  
 aattgagtgc cttgggtggt aaggatgatg atttattgat gatgaatggg ttcccaaattg 300  
 cctcatctgg tantgccact agtgccggcg gggaatgatt ttgggcatga atcccgannng 360  
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<210> 1386  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-16-Q1-B1-A1

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 agcagcccat caagggattg ttctttctcaa aaactctgct cgctctcttc cactctcccc 180  
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cggcaactat gcanggaaag catgcgcccta tacgtcgccg ttgcaaggga nttcaagata 300  
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 ggatt 425

<210> 1387  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABLI-16-Q1-B1-A4  
 <400> 1387

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 agtgagcttc ttcttgagat ccttggacct ggaattgtcg gtggtttgtt tcttccgatg 180  
 cttggtgctc ttcctgacgc tatgcttate atgggtgtctg gactatctgg agatgcagca 240  
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 ctcaactgtta tctggggaaa cttgtactgt ggggttgcaa agttgtgatc ttccgtgatt 360  
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 tggt 424

<210> 1388  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 <400> 1388

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 aaaatgagtt gctttgggtg ttgtggggag gatgatgata tgcataaaac tgctgattat 120  
 ggaggtcgtc ataaccaagc caaacacttt cctccaggaa atgatgcaag gcaccaccaa 180  
 gcctctgaaa ctgcacagaa gggctctcca gttgtgaagt tgcagcctat tgaagtacct 240  
 attatccctt ttagtgaact caaagaagca actgatgatt ttggatcgaa ttctctcatc 300

ggtgaaggct cttatggaag agtatactac ggggtattaa acaatgatct gccttcagcg 360  
 attaaaaagt tggattotaa caaacagcct gacaatgaat tccttgctca agtttccaag 420

<210> 1389  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 ngaagaanaa naagaagaag gagatcaagg aactcgaagt gtgtgtgtgt gtgtttgcct 180  
 tctcttgtct tttagttttt tctctctttg gctgtgattt cgtcggcgaa gagagacata 240  
 gatcggatat ggccgctgat aatacgggtt cgaaatcgag ctccgctgcg gattcttacg 300  
 ttgggagctt gattagtttg acatctaaga gtgagatcag atacgaaggg attctttaca 360  
 atattaatac aagatgaatc cantatccga cttcaaaacg ttccattaat tggnaactgaa 420  
 ngaaggaaaa aagatggtcc acaaagttcc tccaaagtga caaagtttac gaagtacata 480  
 atgttccgtg 490

<210> 1390  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 1390

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 gaagcggatg aattattata agcccaacag tgccatagga acaccatcat caactagtga 180  
 ccacgctcca ggcagtaatg ggaggaagtt gatgagtata tatagacca atggagacat 240  
 atttacagga ccatcaggca gtgggcatgg tgggggtcgc actccaagcc ccttagtata 300



tatatattaa tgtgtaatca aggactcaca agcgaaacct ttaaattcccg attcacgtat 360  
aacgttatgc cttggtgtag tatatgttta aattcngttt tcaaaagcca agtttttcaa 420  
ttcnc 425

<210> 1391  
<211> 425  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 1391

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aaggcagacg tttcagcttc atggtgttct gaagcagaat ctttaagactg tgatgagctc 180  
gattattaaa aatatgggta gcacgcttgg tgcattgtgg gatctgaaca gaaatgttct 240  
tgctcctgct gcaccttatg tgaagaaaga ctatctcttt gcacaagaaa ctgctgacaa 300  
cattgcggct cttctttctc ctcaatcagg gttctattat gatattgtgg ttgatgggag 360  
agcanttcat gactgctgaa cctccaaaag gtaatgaaag ctcnaaaatg ataactccca 420  
tggga 425

<210> 1392  
<211> 474  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 1392

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ttcttcatca gttgctgtct tgatcgcttt caccgtcatt gtttacattc aagatcatct 180  
aggatggaaa atcggggttg gaataccgcg gattctcatg ctgctcgcg gtttcttggt 240  
tgttttcgcg tctcctctct acgttaagcg cgatgtgagc aagagtctgt tcaactgggtt 300

agctcaagtg gttgctgcag cttacgtgaa gagaaactta actttgccgg atcatcatga 360  
 ctccagagat tgttattacc gtttgaaaga ttctgaactc aaagctccaa gtgacaaatt 420  
 gaggttttta aacaaaagct tgtgccataa agtaaccgcg aatgaaagac cntg 474

<210> 1393  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: ARABLI-16-Q1-B1-E5  
 <400> 1393

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 agtcgaacca agttccgaca ttagaccgac gtaactcact aaaaaaatcg ctcctaagc 180  
 ctttgaatcc aattgcatca aagataccct caccaagacc aatttctcta atctctctc 240  
 ctttgtctcc caacacaaaa tccttaagaa aaccggccgg ttcttgcaag gaacttctta 300  
 ggtctagctc tacaaaatcg aaaccagtga taccaccaga gaacagtgat ggtggctaca 360  
 aagaggttat gcctatgggtg attgttcaaa agcagcctgg aagtatagca gctgccagaa 420  
 g 421

<210> 1394  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-16-Q1-B1-E7  
 <400> 1394

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 ccatctccga tccattgggt taacaagcgc gtgaggcca gatagaccga gaatcatggg 180  
 aaacggaaac tcaacggaga cgaaagagtc ggcggatca aagatgcgta agaagattca 240  
 aaactttogc agccgccgcc gtcttagtcg tccaggatcc ggaagcgtct ctggattggc 300

tagtcagaga tctgtgagcg canatgattt cgccggcatt gctcttctca ctcttatcgg 360  
cgcgagatg aagttcaagg acaagtggct cgcctgtgtt tccttcgggg aacaaactt 419

<210> 1395  
<211> 429  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-16-Q1-B1-F1  
  
<400> 1395

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taagcatttc actgcctatg atttggaata atgggggaat ttcactagat acgacttcaa 120  
tgctgtggtc acagaacagg acatggaaga cacatatcag cccccatttg agacttgat 180  
aagagatggt aaagctagct gcttgatgtg ttcataataat gcagttaatg gggccctgc 240  
ttgtgcgcaa ggagacttat tacaaaaagc tccgagttga gtggggattt tgaaagggt 300  
cattacatca gactggtgat gctgtggcaa ctaattttgc cgtaccaagg gatataccaa 360  
agtcanctga agaantgtt gctgatgcca taaaagcaag ggtggatata aaattgtgga 420  
acatacatg 429

<210> 1396  
<211> 78  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABLI-16-Q1-B1-F2  
  
<400> 1396

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aanannannn naaaaagg 78

<210> 1397  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABLI-16-Q1-B1-F6

<400> 1397

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ggcatggta atgaactatt ttctctctgc tctgaccaca agggaaacct tgttgcttca 180

tcgtgtaagg ctcaatctgc atccatggca gagatatggc tatgggaggt tgggacatgg 240

aaagctgttg gtcgtttgca atctcacagc ttgacgggta cgcacttgga gttctcttat 300

gatgacactc tgctcttgct tgtctcaaga gatcgctact tctccgtttt ctctatccaa 360

aggacagaca atgggtgaggt taagtcacaa actcatggca aagggtgaaa gcacacaaga 420

a 421

<210> 1398

<211> 473

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-16-Q1-B1-G4

<400> 1398

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acctcaaaat aagctcagtt ttttctgctt cttcttctctc gtctctgtac taactcttgc 120

cccattggct ttctccgaga tcttcttaga ggagcatttc gaaggtggat ggaaaagtag 180

gtgggtcttg tctgattgga aaagaaacga aggcaaagct ggaaccttta agcacactgc 240

cggtaaattg cccggcgatc ctgacaataa aggtattcag acttataatg atgccaagca 300

ttatgcgatt tctgcaaaga ttcttgagtt tagcaacaaa aaccggactc ttgttgtcca 360

atactcagtc aagnattgaa caaagacatg aatgtgggtg gtgcttacia taaanctcct 420

gtctggctaa ggttaancaa gaaacaantt ttggtggng atactccaaa aca 473

<210> 1399

<211> 426

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-16-Q1-B1-G6

<400> 1399

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cacttagctt tcgttagcat ttcatggaa gctgccaaat tcatcggtga aaagacgaat 120

tcagtcgacc ttgatgaact caatttcgcc ttatcaagtg gatctacttg tattgttggg 180

attatactgg agagatttcc agagctagct aggaaaaaatg cttgggaggt tgaagacggc 240

tcgcgatcaa cgttactgca ttatgcgtgt gacaaagggtg accttgaact gacaagtata 300

ttgttaggac tcaatcaagg gactaagaag aagctcttaa cagcaaaagg ttatcacctc 360

tgcataaac agtccaaaag aggtcaatt tataatcctg ganggagttt aanggacaag 420

tcccca 426

<210> 1400

<211> 408

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-16-Q1-B1-G7

<400> 1400

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180

nnnnnnnnnn nnnnnnnnnc cgctgtaatc attctgatga ttctgattca gagtcttctg 240

aagatgatag aagacagaag cggaggaaca aagtcgcagc ttcttctgac tcagaagcaa 300

atgtttcagg cgatgatgtt tcacgcgttg ggccttggtc ctccaagcgg tctgagaana 360

aagaacaagg aaacgtcatc acaagaaaag aancgagaat taggaaat 408

<210> 1401

<211> 427

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-16-Q1-B1-H3

<400> 1401

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 aaactccggc gccgattcaa ataactgccg aacagatatt aagagaagct cgagagagac 180  
 aagaagctga gatccgtcct cccaagcana aaatcactga ttccactgag ctttccgact 240  
 acagactccg ccgganaaan gaatttgaag accagatccg tcgcgcgaga tgggcacatt 300  
 cangtttggg tcaaatacgc tcaatgggaa gagtcacaga aagattacgg ctctgtgctcg 360  
 aantgtttgg gaacgaanca tagnaggag attttagggn nccatancct ttgggntcaa 420  
 agtacgc 427

<210> 1402  
 <211> 484  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-16-Q1-B1-H4  
 <400> 1402

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 agaancetta acaagacaat ttgtngtctg gtctcaacaa aacccttctt ttctccatct 120  
 ttcttttttg ctttgtttct gtgctacgat ttgtcaaaaa aaagaaaccc aaatcaaaag 180  
 cttcgaaatt tcataagatt tctttgtttt tctgaagatc caaggcacac aaaaaaacag 240  
 ctttttttgt ttcttcaatc aaggattttc cagggttttg ataaccccat ggggttcaggg 300  
 ttctctctgt ttcaaaagaa tttatcgtct tggtatggag atcgagatct gttgcagcct 360  
 gggtttagga gatttgctg aaagttgggtg tggttttgat tccccaagaa tttggattcc 420  
 cgttgagatc tgtagaatcn ccaaagctaa aacacggctt tcaatggcgc' ttcttggggc 480  
 tgan 484

<210> 1403  
 <211> 266  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-16-Q1-B1-H8

<400> 1403

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atcgatacct tctcttctc ctgatgtggt ggcttttagc ttctactggt gtcagtgaat 120  
gatgtggtgg ctttttagctt ctactggtgt catgtaatga tgtaacgtcg ttatttttaa 180  
gaaaatttgg caccttttgt nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnn 266

<210> 1404

<211> 438

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-17-Q1-B1-A4

<400> 1404

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ccattgggag aggccgagga cttgctttac cccggtggca gcttcgaccc attggggtttg 180  
gctaccgacc cagaggcatt cgctgagttg aagggtgaagg agctcaagaa cggaagattg 240  
gctatgttct ctatgttttg attcttcggt caagccatcg tctactggtaa gggaccgata 300  
gagaaccttg ctgaccattt ggncgattca attaacaaca acgcatgggc cttcgccaac 360  
aacttgttcc cgggaaatna nccaaatttt aaccgtant ttgcctcaat cctttggctc 420  
ctgaattntt aaaagaaa 438

<210> 1405

<211> 401

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: ARABLI-17-Q1-B1-A8

<400> 1405

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aaagagggaa gattcagccg gagagataca acaacataac agtagcaatg gtgaggacaa 180  
 gaacagagag ttagaggctg ttttttctta catggatgca aacagagacg gtagaatctc 240  
 accagaagag cttcaaaaga gtttcatgac attgggagaa caattgtctg atgaagaagc 300  
 cgtagctgct gtttagattgt ctgatacgga cgggagatgg gatgttggat tttgaggaat 360  
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<210> 1406  
 <211> 440  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-17-Q1-B1-B3  
  
 <400> 1406

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 tttgttgtaa agagagttta attaaattat gccttcaata gaagatgagc tgtttccgtc 180  
 aacgccgggt aaattcaaaa ttgaccggtc aaaccgtcag ctccaccgtt gtttcgcttc 240  
 tacgagcacc atgtttcttt gggtctctct cctcatcgct ctcaccgctt cttacttgag 300  
 tttccaaagc ttcgtccgat tcccggtaan cgttaacnaa acgcttcttg gggcggaac 360  
 ccaatgggga aaaacaaggt cgtaactccg gctcaaattc aaccgcnncc gnggggaacc 420  
 cccgttctct gttaccgggg 440

<210> 1407  
 <211> 392  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-17-Q1-B1-B6  
  
 <400> 1407

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 aagagaatcc atctcggttc ctatctttgg tctgttgact tcatttgttg aggettaagc 120  
 tatcggatgg ggatcattaa tcatctttga gtgaggcaga gatttctctc taggagctct 180



ctttcgtttt atttatatgt cgacattata taatgtgttt ttctctggga gagaagcaga 240  
 tttggagtta gagaagtact attttcattt gttcttttaa taactttgtt gcaatttggt 300  
 gaagttttgt ttcccttgag ttctttctgt tgtaacaatt tacaataacc agccattaca 360  
 ttgcaaaaaa aaaaaaaaaa gggggggcnc cc 392

<210> 1408  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-17-Q1-B1-C4  
 <400> 1408

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 agacgatggt gagtttgatt taagatcagt tgatatggaa gattcggtcg ggccactcta 180  
 taggcagccg caccatcttc ctgactacta caattacccg tcgaatagta gtcctttgaa 240  
 tcgtcagtae tcaaattggca actaccgctc gaatagtagc tcattgaatc gtcagtactc 300  
 aaatgggtaa aatagtcac acgaagtatc aaaatgggtt gggcggtata atccagctga 360  
 gacagaagga aaactcaccg gatcnaaccc cttnaatcc ccaaaacnat tgagattc 418

<210> 1409  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-17-Q1-B1-C6  
 <400> 1409

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 aatgctacta acggtgacgg agggtttagt ttccctaaag gaccggtgat gccgaagata 180  
 acgaccggag cagcaaagag aggtagcgga gtctgccacg acgatagtgg tccgacggtg 240  
 aatgccacaa ccatcgatga gtttcattcg ttacagaaga aacgttctgc tctaccaca 300

ccgatnaacc aaaacgccgc cgctgctttt gccgccgtct ccgangaaga acgtcaaaan 360  
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 aaag 424

<210> 1410  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-17-Q1-B1-C7  
 <400> 1410

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 ggcacgcaac tcaatcttgc atcaacgctc tacgtgtcca gatttgtgtc caaagctttg 180  
 caaaatcgac gaaaagatac agcagattgt tccagctctc ctgatatgtc acctccggta 240  
 cctcataaac cagccgatct cgagtttgca aaggctgaag catagtgtgt ctttgaagga 300  
 aaatgactct ctacacaaac aaggtagtga agactccatg ttagctcaaa acatgcccta 360  
 caacgtaact ttcaattant gtcaaataat ttgactcaac aacacgttct aaatattaaa 420  
 aaaaacnt 429

<210> 1411  
 <211> 389  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-17-Q1-B1-D1  
 <400> 1411

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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnncta agtttgtttt 180  
 tgttgttggc tctctgttcc agcttgtatt atcaaatttg agatacatat cttcttagat 240  
 acagaagatt gtgatactat cattgttatg tatttctggg gttccaagt ttcttatncc 300

ttactantac tggttttgat ttgatcccta aataatttac agaaagntgt aanctgnntc 360  
 caaagganca annnaaanna aaaaaaggg 389

<210> 1412  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-17-Q1-B1-D3  
 <400> 1412

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 ggactatcac gtactttccc cgctactgct tttgaagaag acgaatgatt cattttgtcaa 180  
 cgctcaccat catgatactt tgcttagcta aattatcttt tgttttttcc ttataattcc 240  
 ttttgtttag ctaagttcta ttttcaacat ttgtatttct gcatcttttc cattagagat 300  
 tttnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnngggg gggcgccgac tantgagccc 360  
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 aaa 423

<210> 1413  
 <211> 444  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: ARABLI-17-Q1-B1-D4  
 <400> 1413

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 catcatgaga gagttcaggt ctggttcctc ccgtgttctc atcaccactg acctcttagc 180  
 tcgtggtatt gatgtccaac aagtctccct gggttatcaac ttcgatctcc caactcagcc 240  
 agagaactac cttcaccgta tcggaagaag tggaagggtc gggagaaaagg gtgttgcgat 300  
 caatttcgtg acccgtgatg atgagangat gctgtttgat aatcanaaat tctacaatgt 360

gggtgtccaa anaactgcct tccnaacgtg gccgattngc cgttnaaggg aaaaaannaa 420  
tccgntccg gttccgtttt tggc 444

<210> 1414  
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<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABL1-01-Q1-E1-E12  
  
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ttaaaaccca aaattcttaa gcctaattcca aaggagaaaa aaacagagca tttttcttct 180  
tctccaattt aaacagtttc ctaataatct cactttgtct actcgattct cccaactcca 240  
atttgactca tcggaatcat gccattatca atgaatcttc cgacgaatcc gccaccattg 300  
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gccataaact cgctccggtt accgggaaaa gac 393

<210> 1415  
<211> 138  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: ARABL1-031-Q1-B1-G12  
  
<400> 1415

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cagcctcttc ctctccg 138

<210> 1416  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: ARABL1-019-Q1-B1-G1  
  
<400> 1416

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ttacaacgtc ggagtttttt ttctccggtg atgaatagtc cagattgtag catgcttgaa 180  
gctttggcgg gggtgcagcg ttatttgccg tctaacgaac cggatccgga gtcatacccg 240  
gatctattgg gtccggattc accaatcgat gcttactcat gcgaccattt ccgtatgtac 300  
gatttcaaag tcaggaggtg tgctcgtggc cggagtcatg attggacgga gtgtccgtac 360  
gctcatcccg gagaaaaagc tcgccggaga gatccgangg aagtacatta ctctggtacg 420  
g 421

<210> 1417  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: ARABL1-025-Q1-B1-C6  
<400> 1417

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cttacaacgt cggagttttt ttctccggtg atgaatagtc cagattgtag catgcttgaa 180  
gctttggcgg gggtgcagcg ttatttgccg tctaacgaac cggatccgga gtcatacccg 240  
gatctattgg gtccggattc accaatcgat gcttactcat gcgaccattt ccgtatgtac 300  
gatttcaaag tcaggaggtg tgctcgtggc cggagtcatg attggacgga gtgtccgtac 360  
gctcatcccg gagaaaaagc tcgccggaga gatccgagga agtaccatta c 411

<210> 1418  
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<212> DNA  
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<223> Clone ID: ARABL1-025-Q1-B1-G9  
<400> 1418

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<210> 1419  
 <211> 393  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABLI-14-Q1-B1-A5

<400> 1419

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 agaaccttaa cgaagcagag ttcgaggctc tgcttcaaga gttcaagacc gattacaacc 180  
 agacacattt cgtgaggaac aaggagtta aagaagctgc agacaaattg caaggacctc 240  
 tccgacagat cttcgttgag ttccttgagc ggtcttgtag tgctgagttc tctggtttcc 300  
 ttctctacaa tgagcttggc cgaagactca agattacaaa ccctggtgtg gctgagatcc 360  
 tctcgcttat gtctagagat gaagcaagac atg 393

<210> 1420  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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 aagctcagcc tcagttcctc aatgactggc aagccaagct ctggtctcgc ttcttctgcc 180  
 tctcggttta tgtgacaatg tacctcaatg actgccaaag aactaatttc tacgagggta 240  
 tcgggttaaa cacaaggag ttcgatatgc atgtcatcat cgagacaaac cgaaccacgg 300  
 caagaatatt ccctgcggtg ctggatgttg agaaccctga gttcaagagg aaactggata 360  
 gaatggttgt gagctatgaa aaactgctgg ctatangaga aacagatg 408

<210> 1421  
 <211> 422  
 <212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-024-Q1-B1-C9

<400> 1421

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cgaaccacct tgtcttctct tagctcatcg aatctctccg tcgccgtcga ttcttcccgc 120

cgggtgaatct ctgccttatt gttttcttca atttgatcgt cctgaattca tcgtcctatt 180

tagggtttcg atcacaatct gaagaggagg tcatggacgt ttctgctaga aagtcacaaa 240

aagctgggcy cgaaaagttg aggagggaaa aactgaatga gcattttgtt gaactgggaa 300

atgtactcga tccagagaga cccaagaatg acaaagccac gattctgact gatactgttc 360

agttgttgaa agagctcaca tctgaagtca acaaactgaa atctgagtta cacgcattga 420

ca 422

<210> 1422

<211> 268

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-032-Q1-E1-C4

<400> 1422

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aatgatgtaa gaaagatata taggtcttag gttctcttga caggggtcaaa gttggagacg 120

ccgacgacga caccaatgat gacagtgagg acgaggccac cagaagcaat gctgagcaag 180

aaattcttga gggaatgaga gattccacaa ccaacagctt cagctatctc cggaatcacc 240

atcgaagcag taatagcagc cgcggaag 268

<210> 1423

<211> 361

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: ARABL1-029-Q1-B1-H4

<400> 1423

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taattttctct ccatttctct ttctctcttc cttcaaagtt ttctcttttc ttgatgggtt 120  
 taagagagta aagatcatca agtactatgc attaaattga gaagttatta aaaatttcga 180  
 aagtaattaa agattgttga tgatgaagag attaagtagt tcagattcag tgggtgggtct 240  
 catctcttta tgtcctacaa cttccacaga tgagcagagt ccgaagagat acggtggggag 300  
 agaatttcag tcgatgcctg aaagatacca agaagaagaa gaagctatag tagaagaaag 360  
 a 361

<210> 1424  
 <211> 382  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABL1-025-Q1-B1-B5

<400> 1424

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 gggtttaaga gagtaaagat catcaagtac tatgcattaa attgagaggt tattatcaat 180  
 ttcgaaagtg attaacgatt gttgatgatg aagagattaa gtagttcaga ttcagtgggt 240  
 ggtctcatct cgttatgtcc tacaacttcc atagatgagc agagtccgag gagatacggg 300  
 gggagagagt tgcagtcgat gcttgaacga tacgaggaag aagaagacgc tatattagaa 360  
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<210> 1425  
 <211> 355  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: ARABL1-023-Q1-B1-H6

<400> 1425

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 caaatccatc tgtttctggt actccttctt cttcttcttt tggattattc agaagatctt 180  
 catggaacga gagttttact tcttcagttc caaactcaga ttcgtcacia aaagaaacaa 240



gaactttcat ccgaggaatc gacgtgaaca gaccacggtc tacaagcgga atacgggaac 300  
aagaaccctg gataacctca actaacaatt caatcccaaa ctccaaaagg aaaag 355

<210> 1426  
<211> 282  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-031-Q1-E1-C7

<400> 1426

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cccaaaggga ctcccttcag ggatgaactt cacattaacg aagacatgga catgcacgaa 120  
agtgcaaaac ttgagaggca gagacgagag gaagctagaa ggagtttacg ctctggtttg 180  
actgggcttc ctacgcaaaa gaacgagtag ccaatagttg cacaacctcc tcctgaggaa 240  
agtgaagagc cagaagagaa aattgaggaa gacatgtcag ac 282

<210> 1427  
<211> 390  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-033-Q1-E2-G2

<400> 1427

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gtagcaatgg aagaagataa cttgaaagat gatgatgctc atagacttac tctgaatctt 180  
ggtggtaata atattgaggg gaatggtgtg aaaaagacga aacttggagg agggattccg 240  
agtcgggcca tttgttgtca ggtagacaac tgtggagctg atttaagcaa agttaaggat 300  
tatcatagac gtcataaggt ctgtgagatt cattctaaag ctactactgc acttggttga 360  
ggaattatgc agcgggttttgc tcagcaatgt 390

<210> 1428  
<211> 347  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-033-Q1-E1-G2

<400> 1428

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atcatggaga gaaggaggat agagatggag aagaagaaga aaagaagagc tgttactgtg 120  
gtagcaatgg aagaagataa cttgaaagat gatgatgctc atagacttac tctgaatctt 180  
ggtggtaata atattgaggg gaatgggtgtg aaaaagacga aacttggagg agggattccg 240  
agtcgggcca tttgtttgtca ggtagacaac tgtggagctg atttaagcaa agttaaggag 300  
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<210> 1429

<211> 342

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-031-Q1-E1-H8

<400> 1429

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atgtgaagct caaggattac atcgacaaat atggcactgg tggcaactgg atcgcactgc 180  
ctcagaaaat tgggctgaag agatgtggta agagttgcag actgagatgg cttaattact 240  
taagacaaaa catcaaacat ggtgggtttt ctgangaaga agatagaatc atcttgagtc 300  
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<210> 1430

<211> 412

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-087-Q1-E1-D10

<400> 1430

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ctgtgagaag atggggttga agagaggacc atggacacct gaagaagatg aaatcttggg 180

ctctttttatc ctcaaccatg gacatagtaa ctggcgagcc ctccctaagc aagctggtct 240  
 tttgagatgt ggaaaaagct gtagacttag gtggatgaac tatttaaagc ctgatattaa 300  
 acgtggcaat ttcaccaaag aagaggaaga tgctatcatc agcttacacc atatacttgg 360  
 caatagatgg tcagcgattg cagcagaact gcctggaaga atcgataacg ag 412

<210> 1431  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-087-Q1-E1-E2  
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 atgcaggaag ctatcaaag catgcgtcat gctcgacgca ccactttaat ggctcatgat 180  
 gtcgattctg ctcttcattt caggaatttg gagcctacct ctggctccaa aagtatgcgg 240  
 ttcaagagag ctctgagaa cagagatcta tacttcttcg atgacaaaga tgcgagctc 300  
 aagaatgtta tcgaagctcc tctaccaaag gcacctcttg atgcatctgt tttctctcat 360  
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 tctg 424

<210> 1432  
 <211> 418  
 <212> DNA  
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 <223> Clone ID: LIB22-056-Q1-E1-H3  
 <400> 1432

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 gtccccagg gactggtaaa actttaatgg ctctgacctg cgcagcacag accaatgcca 180  
 ccttcttaa attggcaggc cctcaattgg tccagatgtt cattggagac ggagcaaagc 240  
 ttgtccgtga tgcctttcaa cttgccaag agaaagctcc gtgcattatc ttcatagatg 300

aaatcgatgc cattggtaca aagcgtttcg acagtgaagt cagcggagac agggaagtgc 360  
agaggactat gttggagttg ctcaatcaac ttgacggatt cagtagcgat gaacgtat 418

<210> 1433  
<211> 369  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-056-Q1-E1-E11  
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cttccatgga gtccagcact ggacaaaggg taagcgatct aagagatcaa gatccgattt 180  
ccaccaccaa aacctcactg aggaagagta tctagctttt tgcctcatgc ttctcgctcg 240  
cgacaaccgt cagcctcctc ctccctccggc ggtggagaag ttgagctaca agtgtagcgt 300  
ctgcgacaag acgttctctt cttagcaagc tctcggtggt cacaaggcaa gccaccgtaa 360  
gaacttatc 369

<210> 1434  
<211> 427  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-023-Q1-E1-G11  
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gggatcaaat caacgatcca acggccacaa tctcttcacc attctcttcc gtcaacctta 120  
acagcgtaa cgactacca cactctccgt caccgtatct cgactccttc gcttctctct 180  
tccgttacct cccgtcaaac gagttaacaa acgattcaga ctcatcaagt ggcgacgagt 240  
catcaccact caccgactca ttctctccg acgagtttcg catctacgag ttcaaaatcc 300  
ggcgatgcgc tcgaggtega tctcatgatt ggacggagtg tccgttcgca catcccgag 360  
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ttcgtaa 427

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 <211> 409  
 <212> DNA  
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 <223> Clone ID: LIB22-068-Q1-E1-A4  
  
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 cctttgttcg aagattcttc agtcttccat ggagtcgagc actggacaaa gggtaagcga 180  
 tctaagagat caagatccga tttccaccac caaacctca ctgatgaaga gtatctagct 240  
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 aagttgagct acaagtgtag cgtctgcgac aagacgttct cttcttacca agctctcggt 360  
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<210> 1436  
 <211> 387  
 <212> DNA  
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 <223> Clone ID: LIB22-051-Q1-E1-D4  
  
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 cgagtcgtgg cttcaccccg cgcagtataa aaccggctt tgtaaagatg aaacgggttg 240  
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 tcctcttgct tagtcttcag gagtttc 387

<210> 1437  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-078-Q1-E1-H1

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gtttatggaa ctgatgattt taggatgttt agctttaagg ttaagccatg ttctagggct 180  
tattcacatg attggactga atgtcctttt gttcactcctg gtgagaatgc aaggaggaga 240  
gatcctagga agtatcctta cacttggtgtg ccttggtccc agtttcgtaa agggctctgt 300  
cctaaaggag attcgtgtga gtacgcgcac ggtgttttcg agtcttggtc tcacccggcg 360  
cagtatagga cacggctttg caaagatgag actgggtgtg ctaggagagt ttgtttcttt 420  
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<210> 1438

<211> 422

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-075-Q1-E1-D4

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aacagaaatc gaatcaaggc aaaaggaaga agaaacaatg cttctcctcg aattcgctgc 180  
ttgtgatgat cttgactcgt tcaagagaga ggttgaagag aaagggcttg atttgatga 240  
gtcagggtta tggatttgca gacgtgtcgg ttctaagaag atgggtcttg aagaaagaac 300  
acctttaatg ggtgcagcta tgtatggaag cataaagggt ttgactttca tcgtttccac 360  
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<210> 1439

<211> 339

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-034-Q1-E2-G1

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atggttgacag ctatgtatgg aagcataaag gttttgactt tcatcgtttc cactggaaaa 180  
tctgatgtga acagagcttg tggatgaagag agagttactc cgcttcactg tgctgttgct 240  
ggctgttctg tgaatatgat tgaagtcac aatgtcttgc ttgatgcttc tgctttgggt 300  
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<210> 1440

<211> 362

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-047-Q1-E1-C3

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aatcctgagt tgcacccttc tgacttcact ggggtcactc cgagaaagaa ggagattcaa 180  
acgcctaatc caatgttgac ccttcaatg actcctgggtg gtgctgggtct tactccaaga 240  
attggcttga cgccatcaag ggatgggtct tctttttcta tgacacccaa agggactccc 300  
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<210> 1441

<211> 424

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-078-Q1-E1-F9

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ttcctccttt gttcgaagat tcttcagtct tccatggagt cgagcactgg acaaagggtg 180

agcgatctaa gagatcaaga tccgatttcc accaccaaaa cctcactgag gaagagtatc 240  
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tggagaagtt gagctacaag tgtagcgtct ggcacaagac gttctcttct taccaagctc 360  
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atga 424

<210> 1442  
<211> 417  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: LIB22-004-Q1-E1-G7  
  
<400> 1442

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tttctccatg aacggagttg gtggtggggg aggaggagga gggaggtttt tcggtggagg 180  
aattggcggc ggaggaggtg gtgatcgaag gatgagagct catcagaaca atatacttaa 240  
ccatcatcaa tctctcaagt gtcctcgttg taattctctt aacacaaaagt tctgttacta 300  
caacaattac aatctttctc agcctcgta cttttgcaag aactgtcgtc gttactggac 360  
taaacgtggt gttctccgta acgtttccgt ccgaagtggg tgccggaaaag ctaaacg 417

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<223> Clone ID: LIB22-075-Q1-E1-G6  
  
<400> 1443

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ctcaaattct tcatgaatat ctctgcttat cgatcaagtg agagcaaatg caatttttaa 180  
gagccagcta ttggatctat aactgaagag gatatatata gagatgatga gttcttcttc 240  
tccaacacaa cttgcatctt taagagacat gggaatctat gagccatttc aacaaattgt 300



cggttgggga aatgttttca aatctgatat caatgatcat agtcccaata ctgttacttc 360  
 ctctattatt caggttgatc ctagaattga tgatcacaac aacaacatca agataaatta 420  
 tga 423

<210> 1444  
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 <212> DNA  
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 <223> Clone ID: LIB22-063-Q1-E1-H9  
 <400> 1444

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 gtttgggatt atttatcttt tcaatatcat ttgatgaaga aggatggtga gatgggaaga 120  
 agtgatgtca ggaggagtag gagatgaaag agagacaacg ttggagtggg gaagaagatg 180  
 cattgttacg tgcttacgtt agacagttcg gtccgagaga atggcatctt gtgtctgagc 240  
 gtatgaacaa acctttgaac cgtgacgcc agtcttggtt agagagatgg aagaattatc 300  
 ttaagccagg gatcaagaaa ggtcttttga cagaggaata gcagaggctt gtgatccgtc 360  
 ttcaggagaa acacgggaac aagtg 385

<210> 1445  
 <211> 392  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-088-Q1-E1-F11  
 <400> 1445

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 aagacatctt ctccgcttct tcttccggtg gttccaccgc cgctacttcc tcttcttctt 180  
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 actccttctt ccacgacatt tgogttccca gtgatgacgc agtcatctt gaatggcttt 300  
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<210> 1446  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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 aggcaagttc gattatcttg ctaaccagtg gcagatgata cactctgggc tctccctgaa 180  
 gttacatgaa tctcctaagg tacctgcagc aactgatgag tctctccaag ggcgatgcaa 240  
 tgttaaatac agcgaatatc ctgttcttaa tgggtctatcg actgagaatg ctgggtggtaa 300  
 ctggccaata cgtccacgtg ctttgaatta ttatgaggaa gtgggtcaatg ctcaagcgca 360  
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<210> 1447  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-015-Q1-E1-A11

<400> 1447

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 caaagaggtt gttgggtgtg agaataatta gcttggttaag gaagacgtta tgatgcatca 180  
 gatgttgaat aagaaagatt cagctactca ttccactttg ccatacctta atactagcat 240  
 ctcttgggga gtgggtccaa ctgattccgt tgctaatacg cgcggttctg ctgaatcact 300  
 aagcttgaag gttgattcaa gacctgggca tatacaaact acaaagcaaa tcagttttca 360  
 agaccaagat tcattctcaa cacagtcac tggtcaatct tatactgaag ttg 413

<210> 1448  
 <211> 416  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-032-Q1-E1-B8

<400> 1448

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ttcatctgag tctcttttac ttctctcaaa gtatcgatct ttattcttct ttttgtaaag 180  
cctctctctc tctctgattt ctactgacct gtttggaaga tatgatggct catcactcca 240  
tggaacgatag agactctcct gataaaggat ttgattccgg caagtacgtt agatacacgc 300  
cggaacaagt tgaagctctt gagagagttt atgctgagtg tcctaaacct agctctctga 360  
gaagacaaca gcttattcgt gaatgtcnca ttctctgtaa catcgagcct cgacag 416

<210> 1449

<211> 421

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-041-Q1-E1-F7

<400> 1449

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atttcttcat ctgagtctct tttacttctc tcaaagtatc gatctttatt cttctttttg 180  
taaaccctct ctctctctct gatttctact gacctgtttg gaagatatga tggctcatca 240  
ctccatggac gatagagact ctctgataa aggatttgat tccggcaagt acgttagata 300  
cacgccgaa caagttgaag ctcttgagag agtttatgct gagtgtccta aacctagctc 360  
tctgagaaga caacagctta ttctgtaatg tcnattctc tgtaacatcg agcctcgaca 420  
g 421

<210> 1450

<211> 386

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-086-Q1-E1-F5

<400> 1450

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caaaaaactc ttttctccaa ccattaccat ctcatgaaca ctctcacagg aggctctctc 180  
ttctcagaga gcctacccat ctaatatctt ttcattctgag tctcttttac ttctctcaaa 240  
gtatcgatct ttattcttct ttttgtaaac cctctctctc tctctgattt ctactgacct 300  
gtttggaaga tatgatggct catcactcca tggacgatag agactctcct gataaaggat 360  
ttgattccgg caagtacgtt agatac 386

<210> 1451

<211> 327

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-013-Q1-E1-A1

<400> 1451

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aaaaggagac atgcaaaaat aaatctctat cccttgtttt tcttcttcgc ttcacgatt 180  
actcaaagag gttgttggtt gtgagaataa ttagcttggt aaggaagacg ttatgatgca 240  
tcagatgttg aataagaaag attcagctac tcattccact ttgccatacc ttaataactag 300  
catctcttgg ggagtgggtc caactga 327

<210> 1452

<211> 457

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-031-Q1-E1-A4

<400> 1452

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tgtgccatct tctgggaaac taaaacgtga tgattcatct gcacactatc aaaatggtgg 120

atctatacct caacaagatg gtgcaagcga tgctatccct gaggcaaact ttgaatgtgc 180  
 tgcactccgt ataacctatg ttggcgatag aaagatccca cgagatttga ttggctcatc 240  
 atcgaagatt ctccaagttg atgggccaat gcctgaccgc tatgatgaaa tgttgtccac 300  
 acccaatata tacagttttc aaaggaccaa tgacaagttt aatgatggca aaactcctgg 360  
 tccaaacgaa atccaaacga gcactcctgt tgctgtacca aacgatatca ttgaagatga 420  
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<210> 1453  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-056-Q1-E1-G12

<400> 1453

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 ctctactcta tcactccatc tgtgaacata tctttcttat tcttctaggc actatctatt 180  
 tttcactttt tgtaattgga atttggagat ggctatgcaa actgtgagag aaggtctctt 240  
 ctctgctcca cagacttctt ggtggactgc ttttggatct cagccgttgg ctccggagag 300  
 tctcgccggc gattctgact cattcgccgg agttaaggct ggatctgtcg gagagacagg 360  
 acaacgtgtg gataaacaaa acaactctgc aacgcactta gctttctcac 410

<210> 1454  
 <211> 427  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-014-Q1-E1-E7

<400> 1454

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 tgaacatata tttcttattc ttctaggcac tatctatttt tcaactttttg taattggaat 180  
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tggactgctt ttggatctca gccgttggt cccgagagtc tcgccggcga ttctgactca 300  
 ttccgccggag ttaaggctgg atctgtcgga gagacaggac aacgtgtgga taaacagagc 360  
 aactctgcaa cgcacttagc tttctcactt ggtgattgta agagtccaag acttgtgcca 420  
 aagcctc 427

<210> 1455  
 <211> 397  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-055-Q1-E1-D6  
 <400> 1455

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 ttggtgttca tctagacacc acaagctctt ctccgccgcc tctctctctt cctcgtatct 180  
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 cctcttctct tgctgggtat ctctccgatg gtctcgccca taaaacacct gaccgcaaaa 300  
 aaggggttcc atggacggcg gaagagcacc ggacgtgtct aattggatta gaaaagcttg 360  
 gaagaagaga ttggagagga atctctagaa acttcgt 397

<210> 1456  
 <211> 383  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-020-Q1-E1-E8  
 <400> 1456

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 aaaaagaaac cgttggtgat ttagatacag agaagagaag atcatctaac atgggaagat 120  
 ctctatctc tgatgactct ggtctcaaga aaggtccttg gactcctgat gaagatgaga 180  
 aacttgtcaa ctatgttcaa aaacatggtc atagtagctg gagagccctt cccaaactcg 240  
 ctggtcttaa caggtgtggg aagagttgca ggctaagatg gacgaactac ttgagaccag 300  
 acatcaagag agggagattc tctccggacg aggaacagac tatcttgaat cctcattcag 360

ttcttgggaa caagtgggtca acg

383

<210> 1457  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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aaaaaagaac aatccgataa aaagatccgg cgatgtcaaa cccgaccgt aagaatatgg 120  
agaggattaa aggtccatgg agtccagaag aagatgatct gttgcagagg cttgttcaga 180  
aacatgggtcc gaggaactgg tctttgatta gcaaataat ccttggacgt tccggcaaat 240  
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aggaagaaga cgagacgatt attcgagctc acgctcgggt tggtacaag tgggctacga 360  
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<210> 1458  
<211> 436  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: LIB22-059-Q1-E1-C11  
  
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gaaaaatctg gtagtggcgg ttgtgagaag gaaaatgaag ggaatggcgg aagtggtaag 180  
gacaataatg gtaatggcga ttctcagcct gcggagtgtt caactgggtca gaagcaggtt 240  
gtctgcaaag aaattgggtt tggaaaagcc tttaagtatc cttcacagct tcaaaagcat 300  
caggattctc atgtgaaatt agactctgtg gaggcatttt gttccgagcc tgggtgtatg 360  
aagtacttta ccaacgaaga atgcctcaag tcacacataa gatcctgtca tcagcacatc 420  
aactgtgaga tatgtg 436

<210> 1459  
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 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-064-Q1-E1-H5  
  
 <400> 1459  
  
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 tcatatgctg atattggagg tttagaagct cagattcagg agattaagga agctgttgag 360  
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<210> 1460  
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 taagctccgg ttactgaaat tggaacggat caaggattat ttgttgatgg aagaagagtt 240  
 tgtggcgaat catcagaagt tgaaacctca tgaacacaaa gctgacgaat atagatctaa 300  
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<210> 1461  
 <211> 404  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-028-Q1-E1-B4



<400> 1461

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caatggatat tcagggggat acactaaacc ctcaggtgaa ggagatgttt caaagtcttc 180

ttacgagagg cgtggcggtg gtggtgctcc tctgtgttcc ttccgtggtg aagtggtgg 240

acctggtggt ggtcgtcgtg gtggattcag caatganggt ggtgatgggg aacgtcctcg 300

aagggccttt gagcgtcgta gtggaactgg cagagggagt gacttcaagc gtgacggatc 360

tggtcgtggg aattggggaa ctccagnnga agagatagct gctg 404

<210> 1462

<211> 337

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-035-Q1-E1-H7

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gggcctgttg gtggataccg tggatgacgc cgtggaagct acagcaatgg tggatgattca 180

ggtgactctg aaagaccacg caagaactat gaccgtcaca gtagaacagc gtacgggaat 240

gacgataaac gtgatggagc tggccgtgcg aattggggaa ccactcagga tgatattact 300

ccggtgactg aagaatccac agctgttgtg gacaaga 337

<210> 1463

<211> 347

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-080-Q1-E1-B2

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cacagacgcc gtcgaagggtg gttcatctgc ggaatcttcc atgggaatgc gtcgaagagg 180

agctcatcga cctttgcaaa cgattcggca agatcgtcaa taccaagagc aatgtcggcg 240  
ccaatcgcaa tcaagctttc gtcgaatttg ctgacttgaa tcaagctata tcaatgggtt 300  
cgtattaagc gtcattcttca gagcccgcac agattcgtgg gaaaact 347

<210> 1464  
<211> 386  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-056-Q1-E1-F8  
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cgcaatcaag ctttcgtcga atttgctgac ttgaatcaag ctatatcaat ggtttcgtat 300  
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<210> 1465  
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<212> DNA  
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agctcatcga cctttgcaaa cgattcggca agatcgtcaa taccaagagc aatgtcggcg 240  
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<210> 1466

<211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-081-Q1-E2-A5  
  
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<210> 1467  
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 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-017-Q1-E1-A6  
  
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<210> 1468  
 <211> 433  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-008-Q1-E1-F8

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caccagatcc atcagcagca gcagcagcaa cagctggcac agcagcttca agcatttttg 180  
gagaaccaat tcaaagagat tgagaagact accgatttca agaaccacag cttccctt 240  
gcgagaatca agaaaatcat gaaagcggat gaagatgtcc gtatgatctc ggctgaggcg 300  
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aaccacactg aggagaataa gaggcggacg ttgcagaaga acgatattgc tgctgctgtg 420  
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<210> 1469

<211> 418

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-043-Q1-E1-B12

<400> 1469

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gattacggcc aacagactcc ttcggtctct ttaataccga cgaccttgga gtggttgaag 180  
aagaggattt ggaatggatt tcaaacaaaa atgcttttcc ggtgattgaa acattcgtcg 240  
gtgtattacc gtcggagcat tttcctataa cgtctcttct ggaaagagaa gcgactgagg 300  
taaaacagct gagtccggtt tcagtacttg agacgagtag ccatagctcc acaacgacta 360  
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<210> 1470

<211> 426

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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<400> 1470

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 tgatatctca tttgatcaga tcgacgaaga gaggaagaag gtttgagctg agagatcttt 180  
 ggaggtagaa agaagatctc aaaaacgatg tcgtttacag gaactcagca gaaatgcagg 240  
 gcgtgcgaga agacagtgtg ccctgtggag cttctctcag ctgatggaat ctcttatcac 300  
 aaggcttgct tcaaagtctc tcactgcaaa agcagacttc aactgagcaa ttattcatca 360  
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 ttcagc 426

<210> 1471  
 <211> 438  
 <212> DNA  
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 <223> Clone ID: LIB22-076-Q1-E1-B3  
 <400> 1471

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 tcttggtcaa ctttgtccac ttgttcggag atcgaagatg ggattttgta gcgaaagttt 180  
 caggtttgaa ggtggaggga gaaacataag aataggttta aacaaaacag gaaagagttg 240  
 caggttaagg tgggttaatt acctgcatcc tgggtctcaa cgtggttaaga tgactccaca 300  
 agaagagcgt ttagtccttg agcttcacgc caaatgggga aacaggtggt caaaaattgc 360  
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 gaagaagctc aagagaag 438

<210> 1472  
 <211> 355  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-035-Q1-E1-D8  
 <400> 1472

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ttcgatcaga tccgattaag agaagcatat caggctcgggt atgactcgtc gatgtttctca 120  
atgcactcac aatggccacg cctctcggac ttgtcccaac cgcggcgtga tgctcttttg 180  
tgttcggctc agcgaagggt cgatccggaa atgtgcaagt atgggtaatc ttagccatta 240  
cacgggttct ggatcgggtg ggcttgaac cgggttaaaa actccgggtt ctccgggtga 300  
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<210> 1473  
<211> 375  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-056-Q1-E1-G9

<400> 1473

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gttggtgatt tttcaatttc tgggttaatt ttttttaggg ttttcatttg gaatcatgtc 180  
ggatgcgtat tgtacggatt gtaaaaagga gacggagttg gttgtcgatc actcagccgg 240  
agataccctt tgctccgagt gtggtttggt tttggaatct cactccattg atgagacctc 300  
tgagtggcgt accttcgcta atgaatcttc caacagcgat cccaatcgtg tcggtgggtcc 360  
aaccaaccg cttct 375

<210> 1474  
<211> 417  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-055-Q1-E1-F7

<400> 1474

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aaacgaaaac caactcaagt aggagttgca caaaggttca caagcaggga attgcacttg 180  
gccgttcagt ggatctttca aagttccaaa actatgagga gttagtcgct gagctggaca 240  
ggctgtttga gttcaatgga gagttgatgg ctccaaagaa agattgggtg atagttttaca 300

cagatgaaga gaatgatatg atgcttggtg gtgacgatcc ttggcaggag ttttgtttca 360  
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<210> 1475  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-004-Q1-E1-C9  
 <400> 1475

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 ggaagcaaac gaagcacaaa gggccagagg cggcgggcag acttccgacg gtgactccgt 180  
 ctactaagtg taagctccgg ttactgaaat tggcacggat caaggattat ttgttgatcg 240  
 aggaagagtt tgtggcgaat caagagaggt tgaaacctca cgaagagaaa gctgacgaag 300  
 atagatctaa ggttgatgat cttcgtggta cacctatgag tgttgggaat ttggaagagt 360  
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<210> 1476  
 <211> 311  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-018-Q1-E1-G7  
 <400> 1476

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 ttgaggggtt cgtttgatat ctggagaaag gggtttcttg aaacaaggag ttcataattc 180  
 gcgatcttga tctatcgatc ttcatttata tataaaagcg tgaatgagat tatgatggag 240  
 tcgatagggt gtaaatataa tccagcagta gtagttcctt attttacgaa gctcccctcg 300  
 gttacagcat t 311

<210> 1477  
 <211> 358

<212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-060-Q1-E1-G8  
 <400> 1477  
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 ctacgaaatg gcatgtcgat gctgcctctg cccacgactc cagcatctgc agcaacaatg 180  
 tctacactct cgagatgtgc atgactgggc tggacagaga gaaagctgct gtcttctaca 240  
 aggatgaagc tgacaagact gggtcactga ctgataactc tggaatcaga aagatccttc 300  
 ccaagtctga gatctgcgac tttgaattcg agctctgcgg ctactctatg aactcaat 358

<210> 1478  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-043-Q1-E1-D11  
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 tcgctcacac aacaaggcga gatggcctta tctgcaatcg gtttcgaagg ttacgagaaa 180  
 cggctcgagg tgactttctt tgagccaagc atctttcaag actccaaggg actgggactc 240  
 cgtgctctga ccaagtccca gcttgatgaa attcttacac ctgctgcatg cagcatcggt 300  
 tcctctctct ccaacgatca attggactct tacgtactct ctgagtccag cttctttgtc 360  
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<210> 1479  
 <211> 398  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-056-Q1-E1-C5  
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gagttcataa ttcgcgatct tgatctatcg atcttcattt atatataaaa gcgtgaatga 240  
gattatgatg gagtcgaaag gtggtaaaaa gaagtcacgc agtagtagtt ccttatttta 300  
cgaagctccc ctcggttaca gcattgaaga cgttcgtcca aactgtggaa tcaagaaatt 360  
caaattcttct gtctactcaa actgctcaaa gaggccat 398

<210> 1480  
<211> 362  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-080-Q1-E2-B7  
<400> 1480

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tcaccgcagc ttctctgaag aagtctctgt tcttgatggg cactttactc agctgggctt 180  
gaacagcgta gcctacttga tgggcaatga tgatgagact aagaaatggc atgtctatgc 240  
tgctctgcc caggactcca gcaactgcaa caacaatgtc tacactctcg agatgtgcat 300  
gactggtctg gacagagaga aagctgctgt cttctacaag gatgaagctg acaagactgg 360  
gt 362

<210> 1481  
<211> 388  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-012-Q1-E1-H11  
<400> 1481

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ttgatatctg gagaaagggg tttctggaaa caaggagttc ataattcgcg atcttgatct 180

atcgatcttc atttatatat aaaagcgtga atgagattat gatggagtcg aaaggtggta 240  
 aaaagaagtc cagcagtagt agttccttat tttagaagc tncctcggg tacagcattg 300  
 aagacgttcg tccaaacggg ggaatcaaga aattcaaata ttctgtctac tcaaactgct 360  
 caaagagggc atccctgagt acagcgtg 388

<210> 1482  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-068-Q1-E1-B3  
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 ctctcctcct actacaagtc ctgtcgtcaca cacaacaagg cgagatgcgc ttatctgcaa 180  
 tcggtttcga aggttacgag aaacggctcg aggtgacttt ctttgagcca cacatctttc 240  
 aagactccaa gggactggga ctccgtgctc tgaccaagtc ccagcttgat gaaattctta 300  
 cacctgctgc atgcacgacg gtttcatcgc tctccaacga tcaactggac tcttacgtac 360  
 tctctgagtc cagcatcatt gtcgaccctt acaaagtcac cat 403

<210> 1483  
 <211> 385  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-044-Q1-E1-A2  
 <400> 1483

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 ctggagaaaag gggtttctgg aaacaaggag ttcataattc gcgatcttga tctatcgatc 180  
 ttcatttata tataaaagcg tgaatgagat tatgatggag tcgaaagggt gtaaaaagaa 240  
 gtccagcagt agtagttcct tattttacga agctcccctc ggttacagca ttgaagacgt 300  
 tcgtccaaac ggtggaatca agaaattcaa atcctctgtc tactcaaact gtcctaaaga 360

ggcatcctga gttacagcgt gcacc

385

<210> 1484  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-068-Q1-E1-B8

<400> 1484

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ttgatctatc gatcttcatt tatatataaa agcgtgaatg agattatgat ggagtcgaaa 240  
ggtggtaaaa agaagtccag cagtagtagt tccttatttt acgaagctcc cctcggttac 300  
agcattgaag acgttcgtcc aaacgggtgga atcaagaaat tcaaactctc tgtctactca 360  
aactgctcca agaggccatc ctgagtacca gcgtgcaccg atcttcataa tat 413

<210> 1485  
<211> 398  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-060-Q1-E1-E10

<400> 1485

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gagaaagggg tttctggaaa caaggagtgc ataattcgcg atcttgatct atcgatcttc 180  
atttatatat aaaagcgtga atgagattat gatggagtcg aaaggtggta aaaagaagtc 240  
cagcagtagt agttccttat ttacgaagc tcccctcggt tacagcattt aagacgttcg 300  
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atcctgagta ccagcgtgca ccgatcttca taatatag 398

<210> 1486  
<211> 413  
<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-018-Q1-E1-D6

<400> 1486

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tctggagaaa ggggtttctg gaaacaagga gttcataatt cgcgatcttg atctatcgat 180

cttcatttat atataaaatc gtgaatgaga ttatgatgga ctcgaaatgt ggtaataaga 240

agtcacgag tagtagttcc ttattttacg aagctcacct cggttacagc attgaagacg 300

ttcgtccaaa cagtggaatc aagaaattca aatcttctgt ctactcaaac tgctccaaaa 360

tgccatcctg agtaccaacg tgcaccgatt ctcataatat agttatagct ttc 413

<210> 1487

<211> 393

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-028-Q1-E1-E8

<400> 1487

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ttctggaaac aaggagttca taattcgcga tcttgatcta tcgatcttca tttatatata 180

aaagcgtgaa tgagattatg atggagtcga aagggtggtaa aaagaagtcc agcagtagta 240

gttccttatt ttacgaagct cccctcgggt acagcattga agacgttcgt ccaaacgggtg 300

gaatcaagaa attcaaattc tctgtctact caaactgctc caagaggcca tcttgagtac 360

cagcgtgcac cgatcttcat aatatagtta tag 393

<210> 1488

<211> 398

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-041-Q1-E1-G9

<400> 1488

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 tggaaacaag gagttcataa ttcgcatct tgatctatcg atcttcattt atatataaaa 180  
 gcgtgaatga gattatgatg gagtcgaaag gtggtaaaaa gaagtcagc agtagtagtt 240  
 ccttatttta cgaagctccc ctcggttaca gcattgaaga cggttcgtcca aacggtggaa 300  
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<210> 1489  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-037-Q1-E1-D9  
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 aaaggggttt ctggaaacaa ggagttcata attcgcgatc ttgatctatc gatcttcatt 180  
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 cactagtagt tccttatttt acgaagctcc cctcggttac agcattgaag acgttcgtcc 300  
 aaacggtgga atcaagaaag tcaaattctt tgtctactca aactgctcca agaggccatc 360  
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 taaa 424

<210> 1490  
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 <212> DNA  
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 <223> Clone ID: LIB22-064-Q1-E1-E8  
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atatctggag aaaggggttt ctggaaacaa ggagttcata attcgcgatc ttgatctatc 180  
 gatcttcatt tatatataaa agcgtgaatg agattatgat ggagtcgaaa ggtggtaaaa 240  
 agaagtccag cagtagtagt tccttatttt acgaagctcc cctcggttac agcattgaag 300  
 acgttcgtcc aaacgggtgga atcaagaaat tcaaattctt tgtctactca aactgctcca 360  
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<210> 1491  
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 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-005-Q1-E1-B2  
  
 <400> 1491

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 tgatctatcg atcttcattt atatataaaa gcgtgaatga gattatgatg gagtcgaaag 240  
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 gcattgaaga cgttcgtcca aacgggtgga tcaagaaatt caaatcttct gtctactcaa 360  
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<210> 1492  
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 <212> DNA  
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 <223> Clone ID: LIB22-042-Q1-E1-C8  
  
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 ttgttcaagc tgccaaaaag ctggggtaca ctgaaccaga tccacgtgac gacctcggtg 180  
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tggacagcat taagatagag agcttgtatc cagaagagat gggacctgga ctcatgtctg 300  
 tggatgatatt cctccataat ggaatagtaa aacttgatca gaatatagag gagagagtta 360  
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<210> 1493  
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 <212> DNA  
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 <223> Clone ID: LIB22-086-Q1-E1-G7  
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 caggagagtt cgtcgtgagt acaaggccaa aaaggctctca gaggaggact acgttaaagc 300  
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<210> 1494  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-001-Q1-E1-F8  
 <400> 1494

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 gcaacacctt tgctcactac gaccagggtc ttgacaccac cgccatgctc ggtgctgttc 300  
 cacctaggta tggatacact ggtggtgaga tgggccttga tgtttacttc tccatggcta 360  
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430

<210> 1495  
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<212> DNA  
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ccacctggat tcagcttgac gagcctgtcc ttgttatgga tcttgagggt cagaaactcc 180  
aggcctttac tgggtgctat gctgaacttg aatcaactct ttctggtttg aatgttcttg 240  
tcgagacctt cttegtgat atccctgctg aggcatacaa gaccctaacc tcattgaagg 300  
gtgtgaactg ctttggattt gatttgggtc gtggcaacaa gacccttgat ttgggtcaagg 360  
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 ccgtgaagga gtgaagtacg gtgctggaat cgggtccagga gtctacgaca tccactctcc 360  
 aagaatacca tcttctgagg aaatcgcaga caggggtcaac aagatgcttg ctgtc 415

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 cctaattcttt cacctgtgta aaacctaat tatcaatctc caacaacaag atcagatatg 180  
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 tcaatgagat tatgatggaa tcgaaaggtg gtaaaaagaa ttccagcagt agtatttctt 240  
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<223> Clone ID: LIB22-077-Q1-E1-A11

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400

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<213> Arabidopsis thaliana

<223> Clone ID: LIB22-080-Q1-E2-D12

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<223> Clone ID: LIB22-063-Q1-E1-A4

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<212> DNA

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<223> Clone ID: LIB22-079-Q1-E1-G6  
  
<400> 1523

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catggatctc gagggtcaca aactccaggc ttttagcggg gcctatgctg agcttgaatc 180  
aactctctct ggtctgaatg ttcttgtgga gacctacttc gctgatatcc ctgctgaagc 240  
atacaagacc ctacttcct tgaaggggtg gactgccttc ggatttgatt tggttcgtgg 300  
caccaagacc attgacttga tcaagtcagg tttccacag ggcaagtacc tctttgctgg 360  
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<210> 1524  
 <211> 450  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
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 <400> 1524  
  
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 gagctcgccg aagttgagat gcctggactc atggcttgtc gtaccgaatt cggaccttct 180  
 cagccattca aaggcgctag aatcaccgga tctcttcaca tgaccatcca aaccgccgta 240  
 ctcatcgaaa ccctaactgc tctcgggtgct gaagtcagat ggtgttcctg caacatcttt 300  
 tccactcaag accacgccgc cgcagccatc gctcgtgact ccgccgctgt tttcgccctgg 360  
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<210> 1525  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-003-Q1-E1-D11  
  
 <400> 1525  
  
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 gcattggaat ctttctggga tggttaagagc agaagaagct caatctccca atcctaccaa 180  
 ccacaaccat tggatccttc ccacagactg tagagctcag gagagtctgt cgtgagtaca 240  
 aggccaaaaa ggtctcagag gaggactacg ttaaagccat caaggaagag atcaagaaaag 300  
 ttgttgacct ccaagaggaa cttgacatcg atgttcttgt ccacggagag ccagagagaa 360  
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<210> 1526  
 <211> 505  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-F6

<400> 1526

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 ttcctttgaa gaagctgttt gttgtcgatg gatctacaag gtcaagccat agcaatgctt 180  
 acatgtatgg tttctttaag aacaaaagga ttgttcttta tgatacgttg attcagcagt 240  
 gcaagaatga ggatgaaatt gtggcgggta ttgcacacga gcttggacat tggaaactga 300  
 atcacactac atactcgttc attgcagttc aaatccttgc cttcttataa tttggaggat 360  
 acactcttgt caagaaactc cactgatctc ttcaggagtt tcggatttga tacacaacct 420  
 gttcncaatg gggtgntnaa aatttaacca aacgggtannc ccactggcaa natctantaa 480  
 nctttggcct gaacctcggt agtcn 505

<210> 1527  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-F7

<400> 1527

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 gcggcggaag aagctacgta acttcacctc catcattctc caacgacgct aaaaagcttc 180  
 tcgtctgcac aggaaacact gtctctgttt tcagcgccgc cactggctta caggtcatac 240  
 agctccagta acaactctaa ttgttggtcc tgcacaaagt cctgctcaaa aaatcctttg 300  
 ttattgttgg actgcttctc ttgatggtag tattcgatcat tgggatttct ctggacctga 360  
 gctaataaaa actaattgat ggctcaacct tccgaattaa nccaanggta aacnancn 420  
 tttggagcga acctcaacaa an 442

<210> 1528  
 <211> 508

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 taaagtgcac caaanccact aaaattacca aagtgcacatt cactttcaca agaaaatggt 180  
 tccaaaatgg aaaaaggana aaaaaaaciaa tggaagtgtg aacaacatca gaagatatac 240  
 cttganagaa cataagccaa tggcaatcat gataatggnt aacttgataa gagcaatacg 300  
 agactaataa tgatgtanga tcatcatcat gaatcacagg aaataaggaa cacctgtcct 360  
 tggccctctc atttgattgg tcnctccgt ccccggtgaa aaacntnaaa ttccttttca 420  
 angttgcnnt ngaaacccca ttntnaaacc cccattccca aaannggtn canttatttg 480  
 gggccagacc aacacagttt caaaaacc 508

<210> 1529  
 <211> 521  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-G1  
  
 <400> 1529  
  
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 gagcggtaag agctgcaaaa tactcttagg gctgagatta cttgccttct cagccacgtt 180  
 atctgcagct attgtaatgg gactcaacaa agagacaaaag acttttattg tgggcaaagt 240  
 tggaaatact ccaattcaag ctacttttac tgctaagttc gaccacacac cagcttttgt 300  
 gtttttcgta gtagctaag caatggtgag ctccacaac ttgttgatga ttgctcttca 360  
 gatatttgga gggaaaatgg agttcactgg gttttcggct tctctcaatc gccaatcctt 420  
 gacatgctaa atngnacnc aaattncggn gggaanacan cccggggggg ntcattggcgg 480  
 aggtaggaaa gaacgggaac aaacacgcca agatgggaca a 521

<210> 1530  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-G10

<400> 1530

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 gaagctgagc agaagggaga aatcaacgag gacaatgttc ttacatcgt cgagaacatc 120  
 aatgtcgccg gtaacttcta tttcttactt gtaggatacg taatcaatcc tctagacgtc 180  
 tctgcttgca taaggaattg gacattagtgt ttttaagtga atcctagaaa tccggaattg 240  
 taaccataac aggaaattag gctcatgtag gttgggtttt tgggtctccc tgaagaggct 300  
 ggattgtata tgggtttgtg aagctgatat cttgatttct gctgaaacag cgattgagac 360  
 aacattgtgg tctatcgagt ggggaattgc agagctagtgt aancatcctg aaatccaaa 419

<210> 1531  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-G11

<400> 1531

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 agatatttaa gatgtcaagg acgaggactg ctgcttctga ggctcatgac tccatggaat 180  
 ctgaggaaag ggtagacctt gatggtgaca atgatactga ggagattctg gaggaggaag 240  
 ttgaatacga agaagttgaa nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360  
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<210> 1532  
 <211> 507



<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-G2  
  
 <400> 1532  
  
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 ctcatgtaac cagagagagc atcaatggct tctacttctt ctctagcgct ctcacaagct 120  
 ctctttacac gagecatctc tcacaatggc tctgaaaact gcgtctctat accagctttc 180  
 tctgctctca aatccacttc tccacgcacc agtggcacca tctcttcccg tgcacgaaac 240  
 gcctccacga tcagtcactc tctccgccct ctgggttcgtg cagccgccgt agaggcaatc 300  
 gtgacaagtt ctgattcgct cctgggtgat aagtcggtga acacgatcag gtttctggca 360  
 atagatgcgg ttgagaangn gaaatcangt catccaagtc ctctaangg gcgtgcncgc 420  
 angttccnan attttggctn aatgaaattc atgaanttta accccaagaa accttaacgc 480  
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<210> 1533  
 <211> 500  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 catgtgggat atgagcctgt tgtgcagaga aagggtccag gattcccttc ttttactgaa 180  
 ggaggccatt ctactcagtt gcttcagaaa tatggatctg atgataataa cagtttccac 240  
 aatggtaagg atgcagatga cgttttaaga gagtcgtctc ctgggtttga tgttcttggtg 300  
 gataatgagg ctggagattc tgagtattat catgttgaag atcgatatgg acgtagaagt 360  
 caggagagag ggaactcaga gtatgacctt gatttcaatg caanttccga atggggatta 420  
 aanaaccatt acntgaacaa cgttttggat ccanatgatc ggagggaaga caggggatgg 480  
 ggccatcgct nagtttctct 500

<210> 1534  
 <211> 474  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-G5

<400> 1534

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 ttcgacgaat gtgtttataa atctttttat tttctatctg tcttgattta gttttatctt 180  
 ttttggaatc ggtctgaagt tggacaaaag aatccgccat tttctctctg gtctctctgc 240  
 tcttctcttc agtatcggat ctgggtctcc ttcgctttcn tttcaagatt attttgggag 300  
 acnaggaggc gttagctgta attcattgta nacttgcttt ggcnattaaa gcccgtcaca 360  
 caaaaaaag taaaaagcaa canacncncn tnnattgnaa nacttttttt aaggganaag 420  
 gngggggcct ncttnnggnc ccggtgggga aaaaatttgg ccaaagana ttac 474

<210> 1535  
 <211> 487  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-G6

<400> 1535

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 tggaaactca tatctacca atggaaaacg agttctccaa acttgctcaa tcagatatgc 180  
 gatggaccgt tcaccctcag gaggaaaagt taaaggaaat ggcaaagaga gaaggcctat 240  
 ggaacttatt tgttcctgta gatagtgtg ctagagctag aagagaactg gcggctaccg 300  
 agaataaaca taacctctcg ggcaagtctt ttgatcaatt gtttggtgag ggccctcaca 360  
 acctggagta tggttacctt tgtgaaatnn aggggtcctt ccggtttggg cnccanaggt 420  
 gtttaactgt ggggtcacca gatactggga aacatggagg tgatactgcg gtatggtaac 480

aaagaac

487

<210> 1536  
<211> 477  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-089-Q1-E1-G7  
  
<400> 1536

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caaatcgggt acgacttggc tcaaggcact cacattcgca ctgcgcgcaa gatcaaaaca 180  
cacttcagac aatcatcctc tgctaactca taatcctcat gagctagtgc cgtacctcga 240  
gctcgatctt tatctcaaaa gctcgaaacc ggatttgacc aagttgccat catcatctcc 300  
gagattgttc tcaaccacaca tgtcctttga tgcgcttaaa gtaccgttga aagagtctcc 360  
ttgcaagatn gtgtacntgt gcaaggacct tgaaanacct tntggggaac cacttggggg 420  
gtttccaaaa acnccatgan tgggggaaaa caatttaaag tcccaaggct ttgttcg 477

<210> 1537  
<211> 531  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-089-Q1-E1-G8  
  
<400> 1537

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gcgtccgcgg acgcgtgggg ttcgaatcgg gcaattttcg tctggagaaa tctggagata 120  
ggattttgat cgattttctaa gctctaactc cagttttttg ggtagctccg gtgaccttg 180  
agatggcggg tcagaatcct aacatggatc aattcgaggc ctacttcaaa agagcagatt 240  
tagacggaga tggtcggatc agtggtgccg aagctgttgg attttttcaa ggatctggtt 300  
tgtctaagca ggttctcgcc cagatatggg cgctttctga tcggtcacac agtggtttcc 360  
ttgatcggca aaacttttat aattctctga gacttgtaac agttgcacag agcaagagag 420

atntgacacc tgagaatggg naagcaacac cggaaaannn ccnggaanaa nccaattncc 480  
acctcccaaa anttaanctt tcaactancc ctggnacccc gacctaattcc t 531

<210> 1538  
<211> 509  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-089-Q1-E1-H1  
  
<400> 1538

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caccgatgag gtctacactc aagtcactct gcttccactt caagagtttt cgatgctaaa 180  
tgaggagggg aaagaggtca aggagttagg aggggaggaa gagaggaacg gaagctcatc 240  
cgtcaagcgg acacctcata tgttctgtaa aaccttaaca gcgtctgaca caagcacaca 300  
tgaggagcttc tctgtaccta gaagagccgc tgaagattgt tttgctctc ttgactacaa 360  
acaacagagg ccatctcaag agctcattgc aaaggacctc catggagtan agtggnagtt 420  
tcnccatata catagaaggc aaccaagggn ggaatctact cacaactggg ttgnggtanc 480  
tttgcantca aaagaatcct cgctccnctg 509

<210> 1539  
<211> 472  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-089-Q1-E1-F5  
  
<400> 1539

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agaaagagtg agccagatct tcatcgtcgt ggttcttggt tcttcctcga tctctcgatc 120  
ttctgctttt gcttttccga ttaagatcgt agaccatggc cgatgctgat gacattcaac 180  
ctattgtctg tgacaatggg actggaatgg ttaaggctgg attcgtgga gatgatgctc 240  
ccagagcggg tttcccaggt gttgttggtc gacctagaca tcatggtgct atggttggga 300

tgaatcagaa agatgcgtat gttggtgatg aagcacaatc caaaagaggt atcctcacat 360  
 tgaaataccc tantgaacat ggngtttgtt aacaaatngg aangaaatgg aaaaagattt 420  
 ggnatcacac tttctacaat gagctcccgt tattgtcctt gaagagcanc cg 472

<210> 1540  
 <211> 526  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-D2  
 <400> 1540

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 cncgctcgat ttgaagagag aaaattcggt cgatttcgtt ttctcttctt cttttggatt 120  
 ttcccggaaa attttggaaat cggtagagtct ctatcgatta ctggtcaacc atgaatatct 180  
 ttagatttgc tggcgatatg agtcacttga tcagtgtctt aatccttctt ctcaaaatct 240  
 acgcgacgaa atcttgcgct ggaatctctc tcaagactca agagctctat gcgcttgtgt 300  
 tcttgactcg gtacttggat ctgtttacgg attatgtatc tctgtacaac agcatcatga 360  
 agattgtctt cattgccagc tctttggcta tcgtttgggt tatgcgtaag catccacntg 420  
 tnaaggangg catacnaata aaggncctgg nnanaatttc gncaccaant angttggngt 480  
 taaccgtgtt ttgtaccggg gaacttatcc tgaaatgaaa aattcc 526

<210> 1541  
 <211> 486  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-D5  
 <400> 1541

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 tctttctttc ttcttctttg ctttctttca agtgctttcc ctctctcatt ctcttctttc 180  
 ctctctgtgt tctttgttgt tctaaactta aaaaaagatt gaagttgcaa gtaacagagg 240

agctgtctca gatctggttc taaagcgaga gaaagagatt ttgagttgag gaaaaatgag 300  
 taaagaagag ttcatgaaga tccagacttg tgttcttaaa gtgaacatac actgtgatgg 360  
 ctgtaagcaa gaaagtcaag aaaatcctgc aagaaaatcc caaaggggtt tcaacgaaca 420  
 aagattgact cagagcaagg gaaagtgact gtcctctggg agcgtaaatac cttcagttcc 480  
 atcaan 486

<210> 1542  
 <211> 518  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-D6

<400> 1542

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 aaccacgttg ccgacgaagt ccggattatc tctttggtgt cegtcttctc cgtctctcgc 180  
 tcgccgattt cccgctcgtt tttctccgat cggttctaga atcgcttcca gaagcctcgt 240  
 cactgcttcg ttcgctaacg agaatcgga gtttgtgatt gttggtggag gaaatgctgc 300  
 tggttatgct gctagaactt ttgtggaaaa tggaatggct gatggtcggc tatgcattgt 360  
 gaccaaagag gcttacgcac cttatgagag accggctttg acaaaaagct tacttgtttc 420  
 caacanagga aanaanccaa ctcnnttaac aaggatttca aaacttgcct ttggaggtgg 480  
 tgganaaaag gcaaacacca nattgggtat aagggaga 518

<210> 1543  
 <211> 497  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-D7

<400> 1543

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tgaatcccaa agtgagagag tgagtgtttt agcgacagag agatatggcc ggattaacga 180  
gaacggccgg tgcttttgcg gtaactccac acaagatctc cgtttgcatt ctctgcaga 240  
tatacgctcc ttccgctcag atgtctcttc cttttccttt ctcttccgtt gctcagcaca 300  
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agctggaaaa gctcatcaac cagttgaggg aaattggtga agaaatngac ccttgggtaa 420  
atggacaatt taactaanaa natttcccc tttggcttca ccagatgatc aatnaaattt 480  
ctttaatgac atgcgag 497

<210> 1544  
<211> 456  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-089-Q1-E1-D9  
<400> 1544

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caacccaatt ctcaaattca gctgaagtaa ccgactttgt agtctacaaa ggaaatgggtg 180  
ttaaggggttt atcagaaaca ggaatcaaag ctcttccaga acaatacatt cagccacttg 240  
aagaacgact catcaacaaa ttcgtcaacg anacagatga agccattcca gttatcgata 300  
tgtcgaaccc tgatgaggac agagtcgctg aagctgtttg tgatgctgct gagaaatggg 360  
ggttctttca agtgatcaat catggagttc ctttgggaag ttcttgatga cgtcaaggnt 420  
gcgactcaca agttcctcaa tctccctggg gaagaa 456

<210> 1545  
<211> 398  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-089-Q1-E1-E12  
<400> 1545

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aagcagatgg actatgcgca aactgctcat ggcagtggga aggatcttac atcactaata 120  
aatgaggttc ttgatcaggc aaagattgaa tccggaaggc tcgagcttga aaatgtgcct 180  
tttgatatgc gttttattct tgataatggt tcatctctcc tctctggcaa ggcaaatgaa 240  
aaaggaattg agttggccgt ttatgtttct agtcaagttc ctgatgttgt agtcggtgat 300  
ccgagtcggt tccggcagat cattacaaac ctggttggaa actcaatcaa attcacacag 360  
gaaaggggac acatatttat ctcaagtgcac cttgcaga 398

<210> 1546  
<211> 490  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-089-Q1-E1-E2  
<400> 1546

cgacccacgc ctccggcacc aacgnccata actggcactg ggtccgaaac caattgcctt 60  
gaatgggtctc gcaacttctt caccaaacia ttctccggcg ttgatatact ctccggcgaa 120  
ggtaatcttt tcatcaaggt cagtaagatc gagaaagtcg aaggcgaggc ttatgtgaat 180  
gtgaggaagg ggaagattat ccttggtac gagcttaacg tctctttatc ttgggaagggt 240  
gaggctaaag attccgatgg gaagacgctt ttgaaagctg atggattggt cgatatgcct 300  
tatatctccg atgagaatgc tgatgaagat ccggagatta ggttttcggt gaaggatnag 360  
ggaacgattg ggaagacttt tgaaggaacc cattgttaan aaaggggaaa gggaaatttt 420  
tcgggaaaag gttnggggtt aagttnnagg ctatggcnaa aaggaaggcc ccttttaggg 480  
aatgaattgg 490

<210> 1547  
<211> 519  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-089-Q1-E1-E4  
<400> 1547

tacgccgncc ttaccggcc caaaaattcc cggaatcgac ccacgcntcc gaaacccaaa 60



agaaactagg aagaggagta aataatattt gtttttaaaga aatgattctc cacaaaaatgg 120  
 cgttcttggc cgttattctc ttcttcttga taagcagcag cagcgtttgc gttcatagcc 180  
 gtgaaacggt tgcttgcgat acaaaggacg cagcaacagc tacactgaga ttctgccagc 240  
 tttcagttcc tataccggag agagtcagag atttgatcgg acggttgaca ttggccgaga 300  
 aagtgagctt gttagggaaac actgcggcgg cgataccacg tctaggaatc aaaggggtacg 360  
 agtgggtggc ggaggcttta cacggcggtt caaatgtggg aaccggtact aagttccgtg 420  
 ggggggttanc cgnaancaac aantttcccc caagtcatca ccaccgttgc ttcnttcaan 480  
 gccnccttgt gggaaaccaa ccggacgggt tgtgtcaaa 519

<210> 1548  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-E9

<400> 1548

ntttttacgc cgcccaggta ccggtcanag aattcccggg ncgaccacg cgtccgggat 60  
 cataaaagca aagcaaagga ttagttcaat tgcaattctc taattcaaag tttggatccc 120  
 taactgtaaa atccctaatt cnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnagt 180  
 aaccgtccta agaatttccg gcggcgaggg gacgacggcg gcgatgaaat tgacggtaaa 240  
 gttgctaccc cctcgtcaaa accgacttcg actctttcct cctcgaaacc taaaacactc 300  
 tcagcctcgg cccgaagaa gaaactccta agtttcgccg acgacgagga ggaggaagaa 360  
 gatggagctc cccgtgtgac gataaagcct aagaacggca agagaccgtg tcaaatactc 420  
 ttcccgtctc ggcgtttcgg gatntttctc caagacactc ctcaaacaag ggaac 475

<210> 1549  
 <211> 513  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-F1

<400> 1549

tacgccgnet ttaccggcca aaattcccga atcgaccac gcgtccggtc ctttttaagc 60  
 tccaaaagat tggtgctttt tctcttgctt aagtttttga tttattcttc ttcttcgaaa 120  
 agtctgtacc tcgcaagagt ttgattgtcc ttgtgttgcg atttccatgt ttagtatctg 180  
 catttgatag ctttcgatgc tgcattgcaat tcccaagact ctttctgatt gctacaacgc 240  
 cgtgatttct ctctgccatt tccttcgatt tgatttctgg gttctcttct tctcgtctct 300  
 cttctgcatg ttctgccact ctacctaga aaaaagggtta ctttcgcctc cgatttaggc 360  
 tcgatttgat gaattcgtcg tcgtgtggct atttatcaaa ttgagcatta agggttctga 420  
 attgtggggn tcaaaaatgg ttttaaccaa ccggnetggt ngttttttgt ccgctacaaa 480  
 aagcctaata gattctcaaa aggggtaatg ttg 513

<210> 1550  
 <211> 215  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-F2

<400> 1550

aaaattcccg anacgacca cgcctccgca aacgtatcnt tctttctttt tttctcgtaa 60  
 gtgttgctt ttattaaaac gaagtgtgcg tatcttgctt tcacgcttgc taattaaatc 120  
 attgtaaaca aanaataatt aaataaagtt tggtttctnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnngg 215

<210> 1551  
 <211> 528  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-F3

<400> 1551

ttacgccgnc ctttaccggc caaaaattcc cggaatcgac ccacgnnnnn nnnnnnnnnn 60  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnngaattcg agaaccagat 120  
 ctactaatta cctgagagaa aaaagatctg ctctgtttgt ctgaaacaga cagaagtcaa 180

caaatctttc atttgttttt tagcaaatca aagaaatggc cggagggttc gtcagtcaaa 240  
 cgccgggtgt tcggaactac aattacaaac tgacaccgaa agtgtttgtg acatgtttca 300  
 tcggtgcttt tggtggtctc atcttcggat acgatctcgg gatctcagga ggggtaacct 360  
 caatggagcc attcttgga gagttcttcc cttacgtcta caagaagatg aaagaacgca 420  
 catgangaac gaatacnggt cnaatttgga aaantaanct tcnnaanccn ctttaatttc 480  
 gncceccna agntggcggg tttggnggtc cttctctcnt tgctcca 528

<210> 1552  
 <211> 496  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-F4  
 <400> 1552

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 actaagttta agaaaaatgt tgaaaaaagc gtattagcag agggacaaac gctttttagg 120  
 gttttagatt tcctctgaga gagaattttc gaaagcttga gagagatttc caactacgtt 180  
 agccatggcg agcaccaaag ttcaaaagat tatgaccaa cctatcaact tgatttttag 240  
 gtttcttcaa agtaaagcta ggatccagat ttggctatgt gagcagaaag atttgaggat 300  
 tgaaggaaga atcactggtt ttgacgaata catgaatcta gttttggatg aggctgaaga 360  
 agtgagcatc aagaagaaca ccaaggaaac caccttgga ngggttttac ncaangggng 420  
 ncancataac nctgatggat gaacncnggg aaagtgatgt cngtctcaa caactctctt 480  
 cgatgacctt caagct 496

<210> 1553  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-089-Q1-E1-D12  
 <400> 1553

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ttatctcaaa tctccttcca gaaaagcgag ggaatagtgt tgttgagagg tttgtgattt 120  
 ccttttgaaa aaatgatggc ttgtggctta agcaagagcc ttggcttgtc ttccctccttg 180  
 aagaagcaac aaggcatagt gagtatcctt ggtggcattt cgtcgaacac ttcactctgca 240  
 ccttcactta ggcgaacttt ctccgccgat ttgtcctcca agacttgggt ttcccaaaat 300  
 gggttttctc ctatgaagag aatctcttcc tctgagaagc ttcgtcctga cgaagaagaa 360  
 gcagaggaag aatcaagatt cggagtcgat atctgggcac aagattcaac aaaga 415

<210> 1554  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-A8

<400> 1554  
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 tatttttttt gcacaagcaa catttagctt ctgcaaactc cagttcatct ctcaaccctc 120  
 atatcgccgt gttttctcgc tctagtaccg cgagctcgga cgaaccagga agcaatccgt 180  
 taatctagaa gcggtgttga gaagatgacg attacatcaa atatctctgt acagaacgat 240  
 aacctcgttg ttcaagggaa gactatcctt accaaaatcc ctgacaacat tatectaact 300  
 ccggttaccg gtaatggatt cgtttccggt tcatttatag gcgcgacgtt tgaacaaaag 360  
 caaagagtcc tcangtggtc cccaaacnng gttatnggag ggnncttcgg gttaatgtgc 420  
 ngtttccggt ttaanccaag g 441

<210> 1555  
 <211> 489  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-B1

<400> 1555  
 nacgaccac gcctccgcta agagtaaggc ggaggctaaa aggactaaat atatgtttac 60  
 accaagtgaa tctaattgatg tttcagacct acatgagaat ttgctaagcc acagggacgc 120

aatgcattcc tcctttgccg gtggtgatac tcgttattca gattatgacc ctccctaattt 180  
 tttggaagat atggaatcag attattctga atctgaaact gattcttctg atatggagga 240  
 ggatactgat gatgacattc ccttgctgtc aggagctggg cgtcattccg agcgacgcaa 300  
 tacttttagt agacatacgt caggagaaga tgaaagtaca agcantgagg aagatnatta 360  
 tgagtcattcc atttctggnc nactcctccc aacctttatt ccnaaatccc taatatngag 420  
 gctaantacg ggtttccaac tggcaagcnc aaggggaaaa agaaacttcc gggactcttc 480  
 caaggaaag 489

<210> 1556  
 <211> 435  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-B11  
 <400> 1556

gccgcccaga naccgggtcaa ganntcccgg gncgaccac gcgtccggag aagttagatc 60  
 ttcttcttcg tgagctatgc catttacgat gaagatccaa ccgattgata tcgattcttc 120  
 accaaccgta gctagagctg aatcaggaaa caaaccgggtg ctcaaattctc gtctcaaacy 180  
 tttgtttgat cggccgttta caaacgtatt gagaaactca acaactacaa ccaccgagaa 240  
 accattcggt gtcaccgggtg gtgaagttca atgcggcgga gtagtgacgg agttcgagcc 300  
 gagttctggt tgcttagcga agatggtaca gaacttcatt gaagaaaaca acgagaaaca 360  
 agctaaatgt ggacgtaatc gttgtaattg cttaaaccggc aacaacgatg gttcttccga 420  
 tgatgaatca gatnt 435

<210> 1557  
 <211> 494  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-B2  
 <400> 1557

ttacgccgnc ctttaccggg ccaaaaattc ccggaancga cccacgcctc cgcgggacgc 60

gtgaggggaag aaaacttcgt ctctcttctc tgcttcgccc tctcatttcc tgtgagataa 120  
 agggcggagtc tctctccaag ttattttgct catccatcga ttcttagagt tcaaaatggt 180  
 tgatcaagtt cagcaacca ctattgcgca gaaagctgcc gggcaagtcc atgcgttcaa 240  
 gtgttttcaa ggacgttcaa ttgggttacc agaggccttc tatgtatcaa agacatgcaa 300  
 cctacggaaa ctactccaat gcggcatttc aatttcctcc gaaatcccgg atnttggaag 360  
 aatggcttcc ccgtgtttgt ccaaaccnag gaaaaaaggg gtncacnaac tttgcccttg 420  
 atttccaaag gggnggggnt tccgngngng ttcccaaaaa gggggggggc ccaaattggaa 480  
 ggtnttaacc tttt 494

<210> 1558  
 <211> 508  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-B3  
 <400> 1558

ttaccgggcc aaaaattccc gganccgacc cagcgtccg agctattccc nctagcctaa 60  
 caagagagag cccttatctg acccatccaa tcttcaacat gtaccacacg ggagcatgag 120  
 ttgcttaggt acatccacaa gttacaaaat aaagatctat cattgtgcca cagcatgatt 180  
 ccacttgat cttgtacgat gaaattgaat gccaccactg aaatgatgcc agtcacatgg 240  
 ccaagtttca ccaacatgca cccttttctg cctgttgaac aagcccaagg ttatcaggaa 300  
 atgtttacga atttgggtga gctcttatgt acgatcactg gatttgactc tttctcattg 360  
 caacctaatg ccggtgctgc tggcgaagta cgccgggctc aagggtatcc cgttcataac 420  
 caaatgtcaa naggcgatca tcacagaaat gtgtgcatca tacctgtttc tgcacacggg 480  
 acaaaccctg ctagtgctgc catgtgcg 508

<210> 1559  
 <211> 515  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-B5

<400> 1559

cctttacgcc gccaaatacc ggtcnagcat tcccgggtcg acncacgcgt ccgagtgaag 60  
taacttcaaa ggcctaatac tcacttcctt acgattcacc cggccaagcc tttgtgggtt 120  
ttgagaagcc anctggggtc cctgctgttg gaaagtcttc caacacattg actttcggtg 180  
ttaangaggt tgaccaagc acaggtgaag cagaagatga tggagtanaa gatgagtacc 240  
agctagagga tcttgagggt gtagctggag attacatggt gaaagtgggt gtctccaatt 300  
tcaggaatgc gtgggaaagc atggatgaag aagatgagcg ttagacgaa tatggccttg 360  
gccaaagaga gagtttgga gaagctgtaa aggctgtcat ggatcttcct ggcatacaaa 420  
ccttttaang ggaacgggna acaattccgc ccaatgcaag gtccacacac gtgctcnattg 480  
tcaaggtgtg tacatangca acgtgaaagt gttat 515

<210> 1560

<211> 513

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-089-Q1-E1-B6

<400> 1560

ccttctacgc cgnccagtac cggtaaaaaa tccccgggnc gaccacgcg tccncgatta 60  
tgttcggata ctcaccagtc cagctcccta tgctagataa ggacgggtca ggagggattg 120  
tcgcactttc tcaatctcca tttgctggaa gagttccatc aaactcagct actgcaaaag 180  
gcgaaggcaa acaacctgtt gcagaagaag gttcatccga ggatgcatca gaacgaccaa 240  
cgggagacaa cagcaacctc aataccgctt tctctttcga cttttctgcc ataaaacctg 300  
gaatggcagc agatgtgaan tttggaggat cgggggcacg tcccaactta ccgtgggtct 360  
caaccactgg gttcaaggcc cacacggacg gacaatccca ggtgtcacat accgggttaa 420  
acncaaacca nntttaaaan cctnngccct ttccaanggg ccncaaatt tcaccggaag 480  
gattttttac ggcaccaagc cnaaggatta ctt 513

<210> 1561

<211> 438

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-B9

<400> 1561

ctacatatat atanacgcac atacgtacac agttcgaagg ttttagctgc gagtatgagg 60  
 aaggaactgt gtagaaactt tcagcgtggc agttgtaggt atggggaaaa ctgtagattt 120  
 cttcatccac aacaagctaa gccaaataat ccctttggct ttggtacnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnntagt tcgaaccctt ttggatttgg tgtacaaagt 240  
 ggtggttcca gcagaccgaa tcagttccaa gaatacttgg tcacgaacgg cttctacacc 300  
 tactggtggt ggtgctgctg cttctacaca gcagactggg taaacagacg cagccggcag 360  
 atcataaatg cacagatcct gctgccgtgt aagcgggtaa tgcaaagacn nattttaaga 420  
 atganagacc catttgga 438

<210> 1562  
 <211> 502  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-C1

<400> 1562

ccggnccaga attcccggaa ncgacccacg cctccgatta caaataagct cctatcttct 60  
 ttctttcttt tagagatctt gtaatctcct cttagttaat cttctattgt aaaactaaga 120  
 tcaaaagtct aaatggagat taacggggca cacaagagca acggaggagg agtggacgct 180  
 atgttatgcg gcggagacat caagacaaag aacatggtga tcaacgcgga ggatcctctc 240  
 aactggggag ctgcagcgga gcaaatgaaa ggtagccatt tggatgaagt gaagagaatg 300  
 gttgctgagt ttaggaagcc agttgtgaat cttggtggtg agactctgac cattggacaa 360  
 gtggctgcga tctcaactat tgggtaacag tggttaaagtg gagcctatcn ggnnacagct 420  
 aaanccggtg tgaatgctan tagtgattgg gttatggaga gtatgaacaa aggcactgat 480  
 agttatggtg ttactactgg gt 502

<210> 1563  
 <211> 514



<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-C3  
  
 <400> 1563  
  
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 ttttttttct caattcggct tcaaaaattc gttagataga gaagaatcta aaagtctctc 120  
 tcggtcacgc gaatatcttc ttctcaggaa ttcgacgaga ctattcgaaa tcggaaatcg 180  
 cgctttgaat ctgaaactca gaatttagag gacgcttact ccaaagaatc taggggtgtta 240  
 actttctaag aaaaggagtt tgttaaaaca atgaagtata aagatgagaa gtacgagaaa 300  
 gctgagaagg gttcaaggat tttgcccaag acagttttac tgattcttct ttgtggactt 360  
 tcgttctatc ttggagggtt gtattgtggg aagaacataa ttgaagttag tgatgttgca 420  
 aaagctgnat cctcctnct taaatgttga tgactcnctt caagtcaaat cngttctttc 480  
 tcggaatgta ncagtgacta ccaagattac actc 514

<210> 1564  
 <211> 485  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-C4  
  
 <400> 1564  
  
 tttaccggcc aaaaattccc ggaatcgacc caccgntccg cttgttcgtn atctctcttc 60  
 ctccgggaaa aagatgtcgg ccggtaacgg gaaatgctac taacggtgac ggagggttta 120  
 gtttcctaa aggaccggtg atgccgaaga taacgaccgg agcagcaaag agaggtagcg 180  
 gagtctgcc aagacgatagt ggtccgacgg tgaatgccac aaccatcgat gagcttcatt 240  
 cgttacagaa gaaacgttct gctcctacca caccgatcaa ccaaaacgcc gccgctgctt 300  
 ttgccgccgt ctccgaggag gagcgtcaga agattcagct tcaatctatc agtgcacgt 360  
 tagcatcggt aacgagagag tcaggaccaa aggtgggtgan aagaaattcg gcngagaaaa 420  
 aaaaacgaan ggtaaanta anccnggggt tacnctcaan gggcaaaaat cattccaanc 480  
 ttttt 485

<210> 1565  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-C5

<400> 1565

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 tttcaacttt ctggaggcct tctcgtagcc tagcgtcata gatggatttg atggagaaga 120  
 acttgagatt agtggagatt cagaaactag aaggccacac cgatcgtgtt tggagcgtag 180  
 cttggaaccc cgtttcttct cagcccgacg gtgtttcacc gattcttgct tcttgcaagt 240  
 gcgataacac tgttcgaatc tgggaacaaa gctctctctc tcgctcctgg acttgcaaga 300  
 cagttttgga agagacgcat acaagaactg tgaggctgtg cgcttggtca ccctcaggac 360  
 agttattggc cactgcaaat tttgaatggt acaacgggca tttgggaana attacggttc 420  
 tgagtttgag tgtatttcca ctttggaggg acatgaaaac gaagtca 467

<210> 1566  
 <211> 523  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-C7

<400> 1566

agcctttacg ccgnccagta ccggtcaann attcccgggn cgaccacgc gtccgcggac 60  
 gcgtgggaag tcctctcttt tccgaaggat ctgactttat cccggaattc tgacgccgaa 120  
 gcttaaattg aaaaagaaga tgagctccag aagttaaacg gtcaagtttc agtccacga 180  
 gacggagatg tagaagatga cgatccacta gtgttgagtt ctcaagcttt ggcggcgctt 240  
 cgggaatttc tagcagacca gaacaagact gttgcgaagc acgccaccgg cgtcttccgt 300  
 cgccggagga gaagaatccg ataaagtgga gctgggttac gaggattgga gactcagcca 360  
 gttctggtac gaacctgaaa ctgcagagac tgtagcagat gaagtgggca ctccctctca 420  
 aaagaantcc aaagcctgca aaagtccctt gcaattgctt gccctaactc cccnacgttt 480

atctcaagga aaagagatcc taagtcttca ggtgcaattg ctg

523

<210> 1567  
<211> 473  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-089-Q1-E1-A6

<400> 1567

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cttgccaatc tccgccagag aagaagaacc attatgtcct tacacgagat taccaatggc 120  
cgacccgaat caagaaaccc atggcccccg gagaagaaga ccctttaaaag gtctcctcgc 180  
cgtctcattt ggtctcttgt tcatcgctt ttacgtcgt ctcacgcca cacacgacgg 240  
atctagatcc aacgacgaag ggatcgatga aacagagacg ataacgtcac gtgcacgtct 300  
tgctgggtg tgaggagaaac gtaacgatgg gttatggaaa ctttccggtg atcggaaacac 360  
gcgggcgttt tgaatgggac aatantaagt tgncttgga aacnancggg gtttcatttt 420  
cagcctgagc aaaattggnt gaacgatcct aacgggtccat tgttctacaa ggg 473

<210> 1568  
<211> 432  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-087-Q1-E1-H8

<400> 1568

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ggtacagaca aagttgtatg taagtgtgat tagaacagtg gatgctctta tcacgggtcc 180  
acttgcctc taaaaagaat attgaagctc ataattacat ctttagagac taaaacaatc 240  
ttaatcattc accttcacca agtacttgtg tccagaagaa aaagaaggaa aaaaagaaca 300  
caccattcaa gaaagagaga agcttcttgt gataagaaat ttcacaagat tgggggttta 360  
acattccaag ggagangact ttgtcctgtc ccctattcat cttcaagacc cttatgagtt 420

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432

<210> 1569  
<211> 468  
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<223> unsure at all n locations  
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<400> 1569

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ccgaagctct tcttgctgag tacgggaaat cgattcaggg ttgacattt gttattcaag 180  
gttttgggaa tgttgaaca tgggctgcga agctgatcca cgagaaaggc ggtaaagtgg 240  
ttgcagtaag cgacattact ggtgcaatca ggaaccctga aggtatcgac atcaacgctc 300  
tcataaaaca caaggacgca actgggaagt ctcaatgatt tcaatggtgg agacgctatg 360  
aattcagatg aaattgctca ttcatgagtg tgatgttctc aatccatgcc gcctccttgg 420  
tgggtgtcct tgaacaangg aaaatgctgg gagaanttga aggcaaaa 468

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<212> DNA  
<213> Arabidopsis thaliana  
  
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tgatgggaga gagggagttg ctgatccagc tgtgggtgcc tgttgagaca aggagcggcc 120  
gagtgtctgag cacggaggag cagccttact ctatcaacac cttctcccag agccagagcc 180  
tggccctcta ccgagacgcc tcagctggct acagcttcgc agcagaagtt gggtcggagc 240  
agctggtggg gctgcctggg cgtgtgttcc tgaggagaat gcctgagtgg accccagacg 300  
ttcggttttt caggaaggag gagtaccctc gcattggata cggccgcagg taccaaggtt 360  
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<210> 1571  
 <211> 507  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-A3

<400> 1571

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gcaaacatnn tngetctaata gtgcctaaag ctgaaatgac tttggatgaa actttggaag 120
cacttgggtct caatgctaac tctaagcaag ataagggttca ggagacaaaa ccaaatgctg 180
attcttccaa aaaggcttct tcacgatttg tgttggaat anattccaag tatctgaatc 240
ttgagaacga nttgaggaga acgtatgggt caaaggctat gcgatcattt gagagtgaga 300
gtggctctca aggtggttaag tagctctaga cgaangggga aggcgtggag tccatcatat 360
cacaaaanac ggttctggta tctccaaaag agaattgggt cccatgggat aatnnttct 420
caatggagtt tctaaagact aaaagatggg aacaactact tcagatataa ccaatcatcc 480
tcaaatgat caaggctcaa gaagaac 507
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<210> 1572  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 1572

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ggtttccggg tcgggtttta aatccaagaa agaataattg ttcggaagaa tcgacatgca 180
gcttaaactc gtcgccggtta actccgtgg aaccgtcact gcctactact tgtcatcgga 240
aggaccaaca cagcagaga tanactttga gtttcttgggt aatgaaacag ggaagcctta 300
tgttcttcac actaatgtat ttgtcaagg caaaggaaac anagaacaac aagttttatc 360
tctggtttga tccaaccaag aacttcaca cttattcnct tgtctggaga ccacaacaca 420
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tcatatztat ggtagataat gt

442

<210> 1573  
<211> 429  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 1573

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attctcagaa aaattagcaa gtctttgtct tttgctgctg gttgcatagc cccattgaa 180  
gcttttttcc totcaatctt aatgtttctca agagggcttc tgcagcaagc gaaatgggac 240  
aaagaaatag gaatgttgat ttagaaatgg agcaagcagc aatctcaagc ttctctccaa 300  
gcagagcctt gcaccccttt angcagcttt cgcacaacac cgggataata ataatatgcc 360  
tgctatggtt gcacacgttc cnaatttaga acctcattct cttcaagatc tttctctaac 420  
ctgggggagt 429

<210> 1574  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 1574

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gagaaagttg atttgaanag gatgtttgtt actgatgatg atttagctct tcttgctgac 180  
tcttttctg gggttaaaga gcttatcttg gtttggttg aagggttttg tactaagtgg 240  
tatctctatt gttgccaaca agtcagaaa gctgaaagtg cttgatttga ttgagtctga 300  
agtcacggat gatgaaagtg gattggatct cttgtntccc tgaagatgta actttgtttg 360  
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<210> 1575  
 <211> 490  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 1575

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 acagattgaa gctggggaaa cttcaagatc atctangaaa ttgattactt ttgagccaaa 180  
 gttggttata aacaaaggaa tatcggttct tggattcgtt ctgcggttat ttgctgtttt 240  
 tggaactata ggaagcgcgc ttgccatggg aacaacacat gaatctgttg tctctttgag 300  
 tcagctcgta cttctgaaag ttaaatacag cgacttacca acgctcatgt aaaatattca 360  
 gtgatcagta tatcgatgaa tcatgaattt gattgtgtat atataataat actgctctgt 420  
 ttataagtt tttcgtgggt gcaaacgcc a tttctggtgg gatatttggt tctttctcca 480  
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<210> 1576  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-088-Q1-E1-B10  
  
 <400> 1576

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 aaatgggaga tcaaggagta caacaaatgc aacagcctat tgttggtgtat ccaaacgctt 180  
 acaataaaca gtatccagac cttctacaa aaccttcttc ttcctctggc tcaagcggaa 240  
 actttgggac ggtcttcata gtctagccg tgatctttgt cttgtcggt cttgcttgtg 300  
 tctttggaag gctatgtaac cgtgaaagcc gcgcggtctaa gcagcaacat agcaagcatc 360  
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<210> 1577  
 <211> 476  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 1577

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 gagatcatca aaggtgaagg acatggaagt gcagttgatt ggtggacctt tgggatcttt 180  
 ctttatgaac tattgttttg taaaacaccg tttaaagggc caggaaatcg agcaacgctc 240  
 ttcaacgtgg ttggtcagcc tcttagattc cctgaatctc cggttgttag cttcgcagct 300  
 agggatttga taaggagttt gcttggaag gagccacaac atagattagc ttataagcgt 360  
 ggagcaacag agataaagca acatcctttc tttgaaggag tgaattgggc tctggttcca 420  
 agttgccagt ccaacgggag aatcccaaaa ccgggttgtc ttgaagcctt tgaanc 476

<210> 1578  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 1578

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 tacagagttg tttctcattt gctggagatg aagatcttct taaaaacgat atccgtgtga 180  
 aacctggtct tgacgggctt ggtgcgctag gagatgcggg gtggtacgcg atcagagcaa 240  
 ctcttttagc taataacttt gagcttccga aaactgtgac tgctttcccc ggtgctgtnt 300  
 tgaatgaagc aggagtgata ctttctgtg gagcatcttt gagttgggaa gatggacgaa 360  
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<210> 1579



<211> 506  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-B2

<400> 1579

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gcgatgtccc tgctaatacag aacagtgggtg aggttgagag cctcgctcgt ttcgctgtcg 180
atgaacacaa caagaaagag aatgcacttc ttgagtttgc nagagttgtg aaggcgaaag 240
aacaagttgt agccggaaca ctgcatcacc tgactctgga gattctcgag gcaggacaga 300
agaagcttta cgaagccaaa gtgtgggtca agccgtgggt tgaactttaa aagagttaca 360
aggagttcaa agcctgccag tgatgccct gctatcaact tctcccgat cttggctgca 420
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gaaancatgt ttgctgaacc angctg 506
  
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<210> 1580  
 <211> 519  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 1580

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tcggcgaaaca acgagtacga gtttctgagt gagattgggc tgactttctca caacttggga 240
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taacctcaag acaagattgg gggatgcact aagattcaaa ccttgactaa ccttgggccc 480
  
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519

<210> 1581

<211> 511

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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<400> 1581

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atcttctagc ttggattccg atactgcgga aatctccacg acgtttaaga tcgagctagg 180

ggatagtaac gccgttgaga gatgcagcgt attgcaacgc ttccatagtt tcgagaagtg 240

gatgtgggat aatatgctgc atcctagtgc tttatctgca ttttaagtatg gtgctaagca 300

aagcagtcgg ctttttcgca tatgcagaat ctgtgcggaa ctacactttg tcggagatat 360

ttgctgtcct agttgcggtc agatgcatgc tgggtccagat gttggtgagt tgtgttttgc 420

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ccttgccgta nctcaatcct tgtcctccct c 511

<210> 1582

<211> 474

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-087-Q1-E1-F3

<400> 1582

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gaagtttcac agacgcggcg aaggagagg aggaaggaga tagatctctt tttccgtcgc 180

gataataata aaaaataaac gtgtctagag gctgttactg aagagttgat tcatacggag 240

agaggataga aatggcagat gggatatcga gcttttgggg tctgtgact tctactatag 300

agtgttgtga gatgaactac gcctactcat cctacattgc tgagttctac aacactatat 360

ccaatgtccc tggaatccta ttggctctca ttggtcttgt caatgcatta aggcaacggt 420  
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<210> 1583  
 <211> 457  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 aattccccga tcgccgagct ctctccgttt ctggaaaatt caatctcact cacgcgcgtc 180  
 ttcacgatct aatcgaacgc gccgcttcac gccttgtctc cgacgctgga atcaaaccg 240  
 gcgatgtcgt tgctctcacc ttccttaaca ccgtcgagtt tgttataatg tttttagcgg 300  
 tgataagagc tagagccacg ggggcgccgt tgaacgcagc gtacacggcg gaggaatttg 360  
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<210> 1584  
 <211> 457  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 <223> Clone ID: LIB22-087-Q1-E1-F6  
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 ccagagatga tctgaaacca ggcgatcaca tggattcntg gcgtaacgct tatatctact 180  
 ctcatcacgg agtctacgta ggagatgaga aagtcattca tttcactcgt ggaggtggtc 240  
 tagaattcgg aacaggaaca gttttggaca agatcatcga tatttcaata ccaaatcatg 300  
 gaanaagaga caaaaagtgt attgattgtg gagatcantc caatctcggt ggtgtaatct 360

cntcttgtct tgattgtttt ctgcgcngag ggaaatctag atcncttcga atacagtggc 420  
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<210> 1585  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-087-Q1-E1-F7  
 <400> 1585

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 tttaacacta ttccgatgca ttggatattc aaagaagtga agctatcctc actaacagag 240  
 ctgccgctta tatcagctta aaaaaatata aagaagcatt attcgactgt gagcaagcta 300  
 ttggtctcaa ccgatagtct ctgaaatctt attaaagagc ctataaatgt tacatgtagt 360  
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 aagct 425

<210> 1586  
 <211> 529  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-087-Q1-E1-F9  
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<210> 1587  
 <211> 457  
 <212> DNA  
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<210> 1588  
 <211> 505  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tctgttttc tcttaatcc gttgacttct cgccaccgtc ctttcaaata ctgccagag 180  
 ctctcttctc tctccttacc ctctcgaaag gctgctgctt tcgatgtttc ctacgtgct 240  
 ttcacgtca agagacagag ccggagtgat gttgtgtgca aggctgtatc tatcaagcca 300  
 gaagctggtg ttgaagggct caatatcgcc gataacgccg ctacgttat tgggaaaact 360

ccgatgggtg acttgaacaa tgtagtcaag gggctgtgtt gcaagtgttg ctgctaagct 420  
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<210> 1589  
 <211> 473  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 nnnnnnnnnn nnnnnnnnnn nnnnnnncaa ggaaaattta gggttttcga tgaaggaacc 180  
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 cttatctcaa attgactctc gtttcgctga tcgttacaat tgggtttcgt ttcgtcctgg 300  
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 aagatgttta tgaagttcgc tgcatttttc aacggggcat gtgtttgtta atgaaaangg 420  
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<210> 1590  
 <211> 477  
 <212> DNA  
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 cctcgtaagc tatttcacgc gcggtcatca ctgccacgc gccgatcaac ggntcttgtc 180  
 gtattaactt cctagctat tggaatcgcc ggtttcacat ttggactcgc cgtaattctt 240  
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cgagtcgttt gggacgtcgc cggaaatagt aatggcggtt ttagtggcga aaagaagagg 360  
cataaggtta tgggattcgt tggattcaa accggatttg gatctgctgg ccggagacga 420  
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<210> 1591  
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<223> unsure at all n locations  
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caaaggaata tggaagaaaa agatgtgtat acgcaagatg gaactgttga tattcacaaa 180  
aatcctgcaa acaaggagaa aaccggaaat tggaaagctt gccgcttcat tctcggaat 240  
gagtgtgtg aaagattggc ctactatggc atgggcacta accttgtgaa ttatcttgag 300  
agccgtctga atcaaggcaa tgctacggct gcaaataacg tcacgaaatt ggtctggaac 360  
atgttatata actcctttga attgggagcc tttatagctg atgcttaact tggacgatat 420  
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gggtcgaatc ttgaaccgta ccgtgttaat gactcttcta gtcgtaacaa tggccggaac 180  
agcattctcc ggtagcttca acgaagagtt tgacttaact tggggtgaac acagaggcaa 240

aatcttcagt ggaggaaaaa tgttgtcact ctactagac cgggtttccg ggtcgggttt 300  
 taaatccaag aaagaatatt tgttcggaag aatcgacatg cagcttaaac tcgtcgccgg 360  
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 caaaaaaaaa aaacagagta ccttcttctt cacacacata aaaagagacg gtaccaaaaa 180  
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 gagaaaccaa cagctcatct ctctctcgcg gaatcagctg ttcaagaatg tatgagcaac 300  
 atcaacaccg tcatatcaaa atggacttct ccggctgctt cttcctccga cgacttctc 360  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tatgataatc gaaacgacgg cgtatcgaga gagacagctg ctgctgctgc aaccaccgca 180  
 agaaacggcg atagataccg caaacgcggt ggtgacggtt caagatcgag gtttgaagac 240



gcgggcgaccg gagcataaga acgcatacgc aacgatgatg tacatgggga cgccaagaga 300  
ctacgagttc tacgttgcga cacgtgtttt gatcagatcg ttgagaagtc ttcacgtgga 360  
agctgatetc gtcgtcatcg cttctctcga cgttctctc cgatgggttc aaacccttgg 420  
aagaagaaga tggagctaaa agtgggtgaag agtttgaaaa atgttggata atccatacaa 480  
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<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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tgcccttaac gagatcaaag agtcttccg cgacggagaa cgggtggatcc gatcgggaga 180  
cactccaatc aggaagatca gtggctggga ttctctataa atggactaat tacggaaaag 240  
gatggagatc tagatgggtc ctctcccgcg acggaatctt atcgtattcc aagatccgaa 300  
gaccggagaa tgtcaatctc ttatctcctt ccgatgatct gaggttaatc ggagatattt 360  
ccaccgatcg tctcttgaga atgangagtt gtagtggccg tagtcctcgg aaacatcaca 420  
anaacattgg gcattggtca cctcaa 446

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<211> 462  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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catgatatta aagagttttt ctctttctct ggtgaagttg aaagcatcga tatccaaagt 180

aacgagcata gtgcttatgt cacatttaaa gaaactcaag gagcagagac tgctgtgctc 240  
 ttatctggag cgagtattgc cgatcaatca gtcatcattg agttggctcc caactacagt 300  
 ccaccagcag cccctcatgc tgaaacacag agcagcgggtg cagaatctgt tgtccaagaa 360  
 ggcaagaaga tgttgtgagc agcatgttag caaagggttt cattcttggg aaagatgctg 420  
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<210> 1597  
 <211> 516  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-087-Q1-E1-D12

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 tttggtcttc acggcgtaa gagcgatata cttagatctc atcctctcga aacggcttac 180  
 gaatctggga agcaatcaca agaagaaatg aagaggagag tgatcacgca tacttatgga 240  
 gctgctcttc ctttgaagat ggatcttgat agacaaatcc tttctcgggt tcagagacct 300  
 cctggaccaa ttccttcata aatgcttggc cttgaagtct acacaggagc tctaagataa 360  
 ttttggtttt gaggattact tgaatgatcc tcgcgaatcc gagacgctga aaccaataga 420  
 ctttcaacac gggatgggaa agtttcgggt ttggtcctcc tccaaaaggg cccaagcctt 480  
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<210> 1598  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-087-Q1-E1-D4

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aatttcaaag atgacagttg ttggagatgt tgctccaatt ccaaggagga acagttctac 180  
 ttgctctaata gatatcgctg ctccgttatt accagagtgt catggagatg aagttgctca 240  
 tgatgaattc aatggagctt ctttttagtgg cgcggttttt aacctcgcca cgactataat 300  
 tgggtgctggt atcatggctt tgcttctac aatgaagatt cttggacttg gacttggaaat 360  
 cacgatgatt gttgttatgg ctttcttgac tgatgcgtcg attgagttct tgcttagggt 420  
 taagtaaagc tgggaagaat cgatcttacg gtggtttaat ggggtggt 467

<210> 1599  
 <211> 457  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-087-Q1-E1-D5  
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 ttatatcagc aagtgtcaag cttcctattg ctgagagaat accgccatac actacctgga 180  
 tatttttggg cagaaatcaa agaattggctg aagatcagtc tgtgggttggc cgaagacaaa 240  
 tctactatga acaacatggt ggtgagacgc taatatgcag cgatagtgag gaagaaccag 300  
 aacctgagga ggaaaaacgt gaattttccg aggggtgaaga ttccattata tggttaattg 360  
 ggcaggagta tggcatgggt gaggaagtgc aggatgccct ttgccagttg ctaagcgtag 420  
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<210> 1600  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana  
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aaagttttga tttttttttt agtttgagag ctggatttgt gattctttct ctgggttgg 180  
gaagtttttt acttgcttcg atcttataga tcagagcttc tagcagcgta aaaaatgcag 240  
acgaggtata tggagaggac taatagtatg agagagaaga gaaaattgga ggaagatgat 300  
aatcagcagc agcagcaaca gcctgagcgt aaaaggccag ctcttgcaag tgtaattgtg 360  
gaagccttga agatggatag ttacagagg ctttgttctt ctttggaaacc gattcttcgc 420  
cgagtggtaa gtgaagag 438

<210> 1601  
<211> 469  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-087-Q1-E1-D8  
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tggttttaag ttaaaggtaa atttatcgaa agtaagtaga ttctaatgg cagcttccaa 180  
tcattcatct ggtaaacctg gaggagtttt aagtgatgct ttatgtaggg agctctggca 240  
tgctgtgct ggacctcttg taaccctacc tcgtgaaggg gaacgagttt attatttccc 300  
tgaaggccac atggagcagc tcgaggcatc aatgcaccaa ggtttggagc aacagatgcc 360  
ttccttcaac ctcccatcta agatcctctg taaagttatc aacatccaag cgcagggcag 420  
agcccagagc tgacgaagta tatgcgcaa taaccttatt gccaagaac 469

<210> 1602  
<211> 491  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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gtcatgttgg acactattgg atttgtacct aaaccccagc accgatgccc cattcccgtt 180  
gattatgacc ctgataaggt gctcctacca agtgataaaa ccgcagatac aattgtcaga 240  
aatttgacct acgtaacaga ggatgaatcc tctaagtctc agtttctctt atttggcgga 300  
aacataagct ggtctgaacg aagaagaaaag cttcaaactg aaacctgaga tgaaggcat 360  
tgccgattca tgccacgtgg tgggtgctgaa atgtcatctc cnggataaag aatacgtaa 420  
agaagtgcac aattgttgtt gccacgggga atttccnatg ccataatgat gaaacccaac 480  
caanccatca a 491

<210> 1603  
<211> 478  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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aaaaggcctc atgaccgagt gcctctgaaa gatatgaagg ctgactggca tgcattgcctt 180  
gacaatcctg ttggattcaa gggttttgca gtgccaaaag aaaaacaaga agaagttgtg 240  
aagttctcat acaacggaca acctgctgag atcaagcatg gtagtggtgt tattgcggca 300  
attactaagt tgtacaaaca cgtcaaacc tagtgtcatg atcggagcag cactcgttgc 360  
aaaaaaagct tcagatcttg gcctgaaggt aaaacctggt gttaagacaa gtcttgctcc 420  
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<210> 1604  
<211> 462  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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gagaagaaga gctggaagaa tttctttgct tacttaggcc ctggttttct tgtttcaatc 240  
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gaattacttt ggatcatatt ggtggcctca tgtgcggctt tggtgattca atctctggct 360  
gctaattctg gtgtgtgcac aggaaaacat ttggctgagc aatgtagagc cgagtactcc 420  
aaagttccaa actttatgtt atgggtcgtt gctgaaattg ca 462

<210> 1605  
<211> 442  
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<213> Arabidopsis thaliana  
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tcgttgantc tcttatctcc gctgcaaatt tccccacgg ccttttcttc actcctctgt 180  
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tttgaatttc ttccttaatc atcatctccg gtgactcaaa tgagaaaaag tcatcgagat 300  
aatcataatt agggcaaaaag aaggcttgag gttcagatga ttgatccaag aaacagctct 360  
cgttccataa gagtgattct tgtgatgagc tccaagaac ttggcagatg aatacatgga 420  
agattgggaa tantccataa gt 442

<210> 1606  
<211> 461  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-087-Q1-E1-F1  
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 taaagcaata cccttttctt tcttttttgg taacccccaa accctacttt gtccagcgag 240  
 aaaggaagag gggtttcgct tgattccgct aaatctctaa gtctttatct aaagatcatg 300  
 gattccgatg atgatatgca cgatatggga ctcggtagat tatgattatt acagcggcgg 360  
 cacctatgat gacaacgata gtgatgaaac tgatttcggg tttggtgagg ctgacaccgg 420  
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<210> 1607  
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 gactaaacaa tggcggacaa cacaggatcc gagatgaaat caggttcggt tatgttagag 180  
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 aagctccagg atcaggggtt caccaatttg gtccttcgaa ccattcaga gcttgatctc 300  
 actagccaat cagatgttga atctttcttt gctacagaga aaccagttta tgatcatccta 360  
 agctgctgct aaagtcgggtg ggattcatgc taacaacaca taccagctg atttcattgg 420  
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<210> 1608  
 <211> 431  
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 tagctggaga cttgatgctg ataactatga aaccgatgag gatttgaaaa agatccgtga 240  
 atctcgtggt tactcttaca tggacttttg tgaggatatgc ccggaagc ttccaaacta 300  
 tgaagtgaag gtgaagagct ttttcgaaga acatttacac actgatgang agatccgtta 360  
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 gtattnggta a 431

<210> 1609  
 <211> 460  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 caagctcttc cgcattgctt ttctagtgtg cctctcttcc tctatgatga tcaacacttg 180  
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 ccccaaatg cccactgcaa tgtctccatt tccaatgcca tcagctttgc cacaacaaaa 360  
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<210> 1610  
 <211> 481  
 <212> DNA  
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 <223> unsure at all n locations  
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ctggacaagg aatggcgtca gcgtaattt gaagttgata gcttcagaaa ggagttcaac 240  
aagctcaata ngcaagtggc gcagctcaaa attaaaaaag gaagatgcga gtgagattat 300  
tcaacaaact gagaanaaca aacaagattc tactgcaaaa ggangctgaa attcntgaag 360  
cctaattgctg ctttgaaann cnaagttggn ngcaggttgg naattttggn ccatgattcc 420  
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n 481

<210> 1611  
<211> 480  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-B1  
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caaaaccgga aactttactt cgtggaattt tcccttgttt ctgaaatgga agacacaaca 180  
tttaccaaag tggtcggttg aggattagct tgggaaacac acaaagtctc tctcaggaat 240  
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gtagatncag ctctgttat tgatggaaga agagctaatt gtaatccntg ctgcttttgg 420  
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<210> 1612  
<211> 505  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-B11  
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<400> 1616  
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gggcagattc gggagattca aaggcctaca gagattccag acaatgggtct tctttgtgat 180  
ttactttggg ctgacccga tcagaagaat gaaggggtga ctgatagcga tcgaggtatc 240  
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gagccgtgga tnaatctctc gtttgctcct ttgagantct gaa 463

<210> 1617  
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<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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gaagattgat gattctggat tacattatca tgggaggagc ttgttcaagg aagagagatc 180  
aacaagttga gataatttaa acagaggtgt ctctggaaaa tatagcaaga gttcaagttc 240  
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<210> 1618  
<211> 523  
<212> DNA  
<213> Arabidopsis thaliana  
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<223> Clone ID: LIB22-086-Q1-E1-C10

<400> 1618

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aacttcagag cggatgatcag attcaccgat ttttctcaaa atgctaataa aatcccaaag 120  
attgactctt ttctctcttc tcttgtccaa aacaagacgg atcccgggta actcccacca 180  
aacactgggc gcagaatcgg tgataactcg gagaacactc ggtgcgatca ccgcaactcc 240  
gagttttcat aaaaatccgg tggatgattcg acggaggatc aaattagaga gagttacgag 300  
gaactgcgtc agaattgatc ggnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360  
nnnggatctg gtgaaacaga gcatatggga acaagatgaa aagagatagt gaaagtctca 420  
caangtccgg cgaattggga tgtngatttn ttggaccgtt tgattgannt ctcatccgac 480  
aacgggtccgt caatcngggc aaaaggaagc tccatcgaaa ntc 523

<210> 1619

<211> 439

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-086-Q1-E1-C2

<400> 1619

gccggtcana aattaacggg ncgacccacg cgtecnttca ccactttgca gggttttaga 60  
ttcttgcaact cttggagggt gagcttagtt cgacatgaag gtctttatct aatctccact 120  
cgctggcaat gaagatgaga gtggaaaccg cacttgcgat ccttttggtt ctcatatcaa 180  
ttcaacaatg ttatggaggt gtnagcaact atacatgtac gtgtttctct tcgggcaatc 240  
gaagtgatat cctgnaatct aactgttcca catcatgtaa ttgcagacca gacagagatc 300  
aatgggtatg tttgtgtcct gcaaattgat ttccggttat agccattggt ggttcaaatt 360  
cgatcatgctt cacttcatgc aactgctctg ctggtgctac aaaatcttca aaanaagcaa 420  
taattaaccg anggaaacc 439

<210> 1620

<211> 472

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-C3

<400> 1620

gtgccggtca nagaattaac gggncgaccc acgcgtcanc gcttgtgttc cttaatcctc 60  
cttggatcat cctcctaatt actcagtgat catgcataga ttccttgtaa agctatcttc 120  
ttcttcttca ccattctcta atcaattgag aagcttgaag aaccagcgtc tgattctccc 180  
tctattacct tcttcaaaac cttttacctc ctctctgtg tcaccacctc caagtccctt 240  
gaacgcttct aatcgatttg ggtatcctta ttccgccgat ttgtttcgaa atttgtcacc 300  
tttaaaccce aattcgagga ttttaggagt caatgggatt actagtagta agatgtatca 360  
agcagtgaag cggtaagag aatcgattga agtacgaagt tccgaatgtc ngaactggac 420  
cgggcggttt aacngncgnn aaacgaatgg aaaaaatggt ccaagggaaa an 472

<210> 1621  
<211> 460  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-A5

<400> 1621

ccgtaaaggt canagaattc ccgggncgac ccacgcgtcc ncgttaaagc tccacgcctt 60  
gtcccaattt cctcttttgt tctttccttc tgggcttggt attgttggtt ctcgaaaaag 120  
aagaagaagc gatggtattg ggattttagg gattattgct gtttgttgta tatatatata 180  
tagaagctga gggattttgt gttgtgaaga acatcgaatc ctgttttttt ccgtaagaaa 240  
gttcttagat ttctccaagt gaaagaagat gtcacagct ggtgttgctg taagtccggt 300  
tcgtagcgag ccattgatta tgcctcttgt tcgtgccaat tcttgtcttg attcttatcc 360  
tgacgacacc atcatgattt accttacct tcctggatng gtgataccaa tgcnaatgnc 420  
tgnatcncaa ttcaatngaa ttcggttaan cttcggatca 460

<210> 1622  
<211> 448  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-085-Q1-E2-G2

<400> 1622

ggccggtcan agaattaacg ggtcgaccca cgcgtccngc tgatgcgatt tgctctgttt 60  
tcatggcggg cgcctcatca cggcgagtt tgagagcttc tcgtagccgt cggctgggga 120  
aggagacgaa tcgatccgat ctattcaaaa aacctgcagt tccattcgca ttcgcgctaa 180  
ttcttgctga tgcaatccta gtcgcactta ttatcgcta tgttccatac acgaagatcg 240  
attgggatgc ttacatgtca cagtgggttt ctcgggggag agagagacta tgggaacttg 300  
aaaggcgata cagggccatt ggtttatcca gcaggtttcc tctatgttta ctctgcagtg 360  
cagaacttaa ctggagggga agtctancct gctcagattc tttttgggtg ttctctacat 420  
tgtcaatctg gggatcgtcc tgatnacc 448

<210> 1623  
<211> 444  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-085-Q1-E2-G3

<400> 1623

ggtcgancac gcgtccgata ctcttctctc tctctcaatc tcaatggctc tgttttaaaa 60  
ngggcaaatt agagagattt ctcttcaat aacaaaaaat cgccagcttt atctctctct 120  
ttttcacatc ccatggctag atggtgacga cgattcacgc ataaactagg gttccccac 180  
aatcatctt acacgtatcc tctattcctt ccttctttc tccgtcatca tcatttttcc 240  
caccgacaac aatctctcgg agtttgggta ttattacttc tctcatcaac caattgtacc 300  
actagatctc ccagattcct tcattatctc tatcaataat ggcgttgaag tctanttctg 360  
ctgatggtaa aaccanaaag ctccgggtta attctcattg ngtaattta agttggcntc 420  
ntttanattt tgggaacaat ggca 444

<210> 1624  
<211> 440  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-G4

<400> 1624

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cggggncgag ccacgcgtcc aaacaaagcc agcgananag acanagggtca gaanatttga 60
tttttcgtan tcctcttcaa aggcaaacaa tttacacagc tatatatata tttttagggt 120
ttttgagtat ctgcgcgaggt tttacatana tttctccatt atggattcga tgatgaatca 180
gaagactggt ttggctgtga cggatgatgt ggtggttacct gttagctctg ttttanctat 240
aatgaaagag cttggaaagg aagtgattga gagttttgat cctctgatta ttactcaagc 300
atccacaatn aatcagtttc ctttgatgac ttcctctgtg gangcgggtat ttagccattt 360
ccaanacatc tgattttcaa gtgataaaat atgtggtgag ttccaagaat cctgangcct 420
ggcggcaccg gtttcggtgt 440
  
```

<210> 1625  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-G7

<400> 1625

```

ggtcgacnca cgcctctact ttnagtcann cgnagagttc aaaggttgag ccaagtgggg 60
aaacagatgg tgacttgaaa agaaaacagt ctgaggtagt ctccgaggaa caaaaccgtc 120
ctaacaagtc cccaaggagc tttgacaaac catcaccgag caataaaaag ggcaatgggt 180
ttaagaaacc caagagcaag aaggtggact ggagcgtttt gaggccacca aaacctcaaa 240
ccaaataggg tttaaattag ctaactacag caatctatat gctattagtt acatcggttc 300
atatgttcta gtanatcggt tggtgctctg tctgtatcgt cattcccgtg gtgttgcaac 360
ccgttgata aattatancc aaaagttttg aanttgtttg ggtaaaatt gcncnngttg 420
tctaaaanaa aaaaaaaagg gc 442
  
```

<210> 1626  
 <211> 479  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-H1

<400> 1626

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acgttacctt ccgggccggg caaaattaac gggcgancc acgcgtccgc tctctttgt 60
tgtaactgcc gtcgtaccg acactcgtgc cgttggagaa ttggcaggta tagccgttg 120
agccacgggc atgctcaata ttctagtcgc agggccatcg actggtggat ctatgaatcc 180
tgtgagaact ctaggaccag ccgttgcac aggaaactat aggtcactat ggggtgtatct 240
gggtggctcct acacttgggt ccatactctg tgcagcggtc tacacagggtg ttaagcttaa 300
cgatagcgtg actgacccgc ctgcgccgt taggagcttt cgtcgtaag tgagtgaag 360
acttgtttac aagtcntttg cnttgtataa atttactgta tgattatgta atgatatgaa 420
aaagctttgg aagcntgttg tnaagaataa aangggatgt tgactaataa ttccacnca 479
```

<210> 1627  
 <211> 446  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-H12

<400> 1627

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ggggccgagg nacgcgtcaa nccacangtc cgatggaaga gaagaagaag gagcttgaag 60
agttgaagta tcaatcagggt tttggtaacc acttctcctc ggaagcaatc gccggagctt 120
taccgttaga tcagaacagt cctcttcttt gtccttacgg tctttacgcc gaacagatct 180
ccggtacttc tttcacttct cctcgcangc tcaatcaaag aagttggntg taccgggtta 240
aaccatcggg tacacatgaa gcggttcaag cctcgtgtac catgctcana agaagcttgt 300
gagtgaagtt tgatgcatca aatagtcctg acgaatccga ctcatccttc nggtggngac 360
ctnagcgatn gtctgatnt cggngtttg attttcgnnt ggggtggggg taacttacca 420
nttttggtgg gaagctngga aagctc 446
```

<210> 1628  
 <211> 477  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-085-Q1-E2-H5

<400> 1628

nctttgccgc cgcccaggta caggtcnag aattccggg ncgaccacg cgtccggtca 60  
agtcaacaag aaaccgggtt tgtctacaat ggcttcgagc aagcagatct ttttattgat 120  
gggatcgcca aaatactacc tgatgggctt ttgcagttga caaatactac agagttgcaa 180  
atgggtcatg ctttcttcaa gaagccgttt gattttgatc catcttcac actatcgttc 240  
tatacacatt ttgtgtgtgc gcttgtgcct cctaagttgg gagctgatgg tggccatggg 300  
attgtctttg ttgtatctcc ttccattgat ctctctcatg catacgcaac tcagtacttg 360  
ggggctcttca gcaacttaac aaatgggact tcctcttcac atctgctanc tattgagctc 420  
gataacgtta agacatnana ntttaatgan ctgganaaag cctcatgttg gtattga 477

<210> 1629  
<211> 459  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-085-Q1-E2-H6

<400> 1629

gtcaaggtca nagaattccc gggccgaccc acgcgtcang agacgaactc tttttctttc 60  
tcgtgacgaa tgtttctgtc tagaagcttt taaggattaa gactctcaa aattttgacg 120  
ccgtgttatt ctcttcccggt ctctcatgga tccttcaaga cgaccaccga aggactctcc 180  
ttacgcgaat ctattcgatc tcgagccgtt gatgaagttt agaattccga aacctgaaga 240  
tgaagttgat tattatggga gtagtagcca ggatgaaagt agaagcactc aagggtgggt 300  
agtggcaaac tacagcaatg ggtctaaatc gagaatgaat gcgagctcca agaagagaaa 360  
gcggtggaca gaagctgagg atgcagagga cgatgatgat ctctacaatc aacatgttac 420  
tgaggagcac taacgattaa atgccttggg ggagcatgt 459

<210> 1630  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-085-Q1-E2-H8

<400> 1630

ggagaangaa agatagaaga tcatggggaa gatagaggag tacaagccgg taatggcgat 60  
gacgatgatt caactatggt atgcaggagt gactctcttt gcaagagcta ctttggttca 120  
tggtattaagc cctcgggttt ttatcctcta taggcaagcc tttgccacca ttttcatctt 180  
cccatttctt tacttatcca ggagaaaatc aaagatagct atatcttctt tggatctaaa 240  
gagcttttct ttaatatctt tgggtctcgt tataggcatt acaatcaatc aaaatctata 300  
tcttgaaggt ctttacttaa cttcatcatc aatgggaagt gcagtgggta acatcatccc 360  
tgcaatcacc ttctcatct caattctcgc ccggatacca agaaactgaa atctccga 418

<210> 1631  
<211> 449  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-085-Q1-E2-H9

<400> 1631

ggtaccggtc anagaattcn cgggncgacc cacgcgtccn tcaagatctg acattgttat 60  
gtgcttgaat tcttcatcaa gctcgtcaga aaaacaccaa aaggtttcaa atttatctga 120  
aattcgtgaa accctaaaaa gggttatgtc aaggtagaag agacagaaca aagatagata 180  
tggttaaggaa gcagaagtac gggaaggtag tgttggtttc ttgcatcgcg cttctagcaa 240  
ccggactcat tgccgacttt ctctgggcta cttctcatcg attctcctcc gccgcaatct 300  
ccgccggatt atctctacct tcttcaacta ccaccgtaat cgttctctggc caggagaaag 360  
atacaaagaa gaagaangat agtgtgaagg aaaggaaact gtctaatacg tttcaaagat 420  
ttgctgtctc cctgaantga aatgggaaa 449

<210> 1632  
<211> 483  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-086-Q1-E1-A1

<400> 1632

tttacgccgn cccgtaccgg tcanngaatt cacgggtcga cccacgcgc cngttttttt 60  
tcttcctttt cctgatctaa attaacttat atttcttagg gtttcacttc ttgaaacatt 120  
taatcagaat taattaacct ctctagggct ttcattggcg atccatgggtg gacaggacaa 180  
gtgaacctat ccggcctcga aacgacgccg cctggttcct ctcatgtaaa gaannnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnt tgagtggaga cgaccacgag 360  
ccacgtgaag gagccgtaga agccccacg cgcctgccan gtggaagtcc tgccgggtcc 420  
aagaacaaac ccaaaggcca cgttttcggg caccngnat tccccaaagg gncccaaaa 480  
ccc 483

<210> 1633

<211> 487

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-086-Q1-E1-A11

<400> 1633

ccgatatccc anatcgacc accgcgnccgg gcanctgcaa nggcttctca tgtttcgacg 60  
gctcgatcac cggctctttc cttctcttct tctgttctct cttcttctcc cggctactact 120  
cttcggagat tctccgctt ttcactcct tctccggctc tccctcgcct tctgttttca 180  
tgtcaagcct cctccgtcac ttcgccttct tctccttccg atgtcaaagg aaaatctgac 240  
ctgaaagact ttctggcaat agatgatttt gacacagcca ccattaaaac gattttaaga 300  
caaggcttca gaggttaagg ccttgctgaa atcaggggag agaaattatc taccttttaa 360  
agggaaatct atgtctaaga tcnttgcaaa aaccttccat gagggaccnc nggttttctt 420  
ttgagaacag gggtttttct tgcccngtgg ncaancgttt nnancnaggg tcccaattaa 480  
aatcaaa 487

<210> 1634

<211> 451

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-G11  
  
 <400> 1634  
  
 gtaccggtca aagnattcac gggncgaccc acgcgtccaa aaagatgagc gacggagacg 60  
 acgctgctag acgccgtacc gcggcggtga ctgattaccg gaagaagctc cttcatcaca 120  
 aggagctcga atcccggtgc cgaacagcta gggagaattt aagagcagct aagaaggaat 180  
 tcaacaaaac tgaggatgat ttgaagtctc ttcaaagcgt tggccagatt attggagaag 240  
 tactacgtcc tcttgataac gagcgattga ttgttaaggc aagtagtggc cctcgttatg 300  
 tgggtgggttg tcgtagcaag gtggacaagg aaaagcttac ttctggaact cgagttgtcc 360  
 tggatatgac tacgctgaca attatgagag cccttcctcc gtgaagttga tcctgttggt 420  
 taaaacatgt tgcatagaaga ttcaaggcaa c 451

<210> 1635  
 <211> 459  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-086-Q1-E1-A2  
  
 <400> 1635  
  
 ggtgccggtc anagaattaa cgggtcgacc cgcgcgtccn aagaaaacca tttgttttct 60  
 tagagagagc caagaatatt aaaagagata tagagaaaag atttgcttta ataatgccaa 120  
 cgtcgataca gtttcagaga tcctccaccg ccgcagaagc agccaacgcc accgtaagaa 180  
 actatcccca ccaccatcag aaacagggtc aaaaagtgag cctcacgcgc gggatggctg 240  
 atgtgccgga gcacgtggag ctttccaca cgcacgtggt tggtccttct cagtgttct 300  
 cgtcgtggt acaagacgtg gaggtccggt tttccacagt ctggtcgatc ctaagccgct 360  
 tcgaacaccc tcaagcgtac aaacacttcg tgaaaagctg ccacgtgggt tatccggaga 420  
 acngtcctaaa aaggtnggtt cggtaaaaaa ggtcaantt 459

<210> 1636  
 <211> 439

<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-A3

<400> 1636

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cgctcngggc gattgagcga agaagaaacc ttcgttctct ctcggaaatg acgaagagga 60
agaaggaagt aatagatgtc gattgctccg agaagaaaga ttttgtgatt gattggctct 120
ccgctatgga taaggaagac gaagttcccg agctcgagat tgtaataacc accaaaccta 180
ctcctccgcc accgccaacg tttttctccg acgatcaaac cgattctccg aaactcctaa 240
ccgatcgtga cctcgacgag cagctagagc gtaaaaaagc gatcctgaca ttaggtccgg 300
gcttaccoga caaggggtgag aaaattcgac tcaaaatcgc tgatccgaag aggagaaaca 360
ncgtanagtt ttaaaaaggn ccaaaattgg ngggggcaaa aattncaaag gncttntctt 420
ccaanaaccc cagggttca 439
```

<210> 1637  
<211> 451  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-085-Q1-E2-D8

<400> 1637

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actttgncgc cgcccaggta caggtcaaag aattcccggg ncgaccacg cgccnagaa 60
aaataaataa aagatctaac ttgacggct ctcttaatct tactcactcc ggttttaagt 120
cggaatagac tgatgggagc ttgatgggta ttggttagatc agatgtggat ttaaagcctt 180
cgctgaacta acaagtctat ggaagaagca aagacccttg tttacactg tatgttgtga 240
ggaatttgct tgattttggg tgataaaggt gaagtcttg agtttgtaat tttgagataa 300
gattggatgg tgggaagaga ggatgcgatg gggaatgatg aagctcctcc tgggttctaag 360
aaaatgtttt ggcggctctgc ctcttggctc gcttcacgga ctgcatcaca agttcctgag 420
ggtgatgagc aaagcctgaa cattccgtgt n 451
```

<210> 1638  
<211> 453

<212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-D9

<400> 1638

cggtagcggc caagaattca cgggncgacc cacgcgtccn actaaatcca attgaccgaa 60  
 taaaatccag taaaccgatc cataaaccaa aattggaaga aaacaatgcc tgtttaatag 120  
 gtgttgaaac tttgctgaaa aaaaacgaag cgagcaccct ctaaaatgcc ttcgatttct 180  
 ctggcgccat tgatttagtt ttctctctct gactacaaag tatccattcg ttcaaaccag 240  
 tttcttccca ttttcgattt ctgtcaaaat tcaccaacca actccaaaaa ctctgttatt 300  
 gaataagttt cttgatctta aaacaaacga tctcaaagaa tggcacgaca cgatcctaata 360  
 ccatttgctg atgaagagat caatcctttt gcgaatcata caagtgttcc tctgccaag 420  
 caactcttat ctcaagccac ttccaacggg aaa 453

<210> 1639  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-085-Q1-E2-E10

<400> 1639

acgcgtccgc ccacgcgtcc gccacgcgt ccgaaaaaaaaa gggttaggtg gatctctcat 60  
 gaaatcggcg gagctcccc atatcttttt taaatagctt tcttcttttg gcccttacc 120  
 cagagataga ttcttatata ctactgagaa tcttcaattt ctgcaacttt tgtatctctt 180  
 cctgatggag tcttcaagtc ccacccatag tcacattggt gaggttaatg ttggaaaatc 240  
 tgatgaagag agaataattg tggcgagtaa agtctgtgga gaagcaccat gtgggttttc 300  
 aagattctaa gaatgcttcc ggggatgctc acgaacgctc tgcttctatg cggaagcttt 360  
 gtatcgcccc tcgtgctgtg tccagtgttc atgaattggt gaaattg 407

<210> 1640  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-085-Q1-E2-E11

<400> 1640

gtcanagaat tcacgggtcg acccacgcgt ccnccacgc gtccggtctc tctctctcgg 60  
gtcaaaatta gggtttcgtt tcactatcca gagtgtatac aaagggtggt gtggagcttt 120  
tatcagatca caggaataag atggagggtat ttggaaaatc tcccatgggt gttacatctg 180  
ccaatgttat ttacttgtct gcaattctgg gtcgcgattg cgatggacac aaatgtgatt 240  
ggaaatgtga gaatgaaaat gtttgtggga atatgtatcg ctgcaaacta actggactaa 300  
ctcatgtctg cgacaagaac tgtaaccagc ggattctcta tgataaccat agctctttgt 360  
gccgagccag tgggaggatt ttccctctct cgtccgtcga agaacaagcg gttaaagggtg 420  
ttcgggagga aacttgacnc cg 442

<210> 1641  
<211> 471  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-085-Q1-E2-E2

<400> 1641

acgttcactn tgccaggccc cggccaaga ataaacgggt cgaccacgc gtcnccac 60  
ancgtccgtc nacttctca tctacctcg ggacatgtgg tcagagtcca agtcctttga 120  
gaaacgtcag aaggaacacg acganaatgt caagaaagtc atcatnaagg cttagggtta 180  
gcggatgctt ccaaggacgg gcttgtctgc actgctcgt agccctggat cnetgttga 240  
atgaggaacg ttgactaaa nagagcccg catttcgang ttgacttggg gganttcgt 300  
aacatccttg anatcaaaa gganaagatg actgctatag tggagccnct tgtaaacatg 360  
ggacagattt ccggtgctac cgtccaatg aacctgtctc tcgctgttgt tgctgagctt 420  
gatgacctta ccgttngggg acttancaat ggatatggaa ttaanggaac t 471

<210> 1642  
<211> 463  
<212> DNA  
<213> Arabidopsis thaliana





<400> 1644

ttactctccc gctcgggtaca ngctctnaat tcccgggncg acccacgcgt centcttggt 60  
tacgtncagg acaacgctcg gagaggctgg ggttacggga tctctgccgc gactatgggtg 120  
gttgacagcca ttgttttact ctgcggaacn aaacgggtacc gtttcaagaa acctaaagga 180  
agccctttta caacaatatg gaggggttgg ttcttggtt ggaagaaaag aaaggagagt 240  
taccctgcgc atccaagtct tttgaacggg tatgacaaca ccacgggtcc acacacagag 300  
atgcntaagt nttagacaa agccgcaatt tccaagaacg agagctctcc tagctcgaag 360  
gacttcgaag agaatgatcc gtggatcggt tcgactgtta cacaagtcga anaantgaaa 420  
ctccgtgang aanttggtac cattttgggc cannaaaaaa tccttttcng ggacaattt 479

<210> 1645

<211> 435

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E2-E9

<400> 1645

aattcacggg ncgacccacg cgtcnctct tttttttttt ttggtgtcac gaaaacgaac 60  
gaatcagtgt cggctcttgg gttccgaaca aaaacaacat tgtacgtcgg atccaaaaaa 120  
cgcgcgttat ataaacgctt aattttctcca ggattcttct tctgcttcg ccattgctcg 180  
aaaatcgcgt cttctgacaa tgtgctgaaa ctgagtcac gtccgagtta gcaaagtgaa 240  
acttcgaagt ttctcttaca ctaatctcag gtttgggatt ttgtaagaaa ccgcgtttac 300  
aaaatgttca agttgaagca atggttgatt tatttggtgt gttcgtaag taataatgaa 360  
cacagaagga ctgtttgtca atattacatt tgttcgaaac gcaatcgcta aaggggccgt 420  
ttgtttaaat ggaaa 435

<210> 1646

<211> 474

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E2-F3

<400> 1646

ctgntcgggc ccggtcacaa ataccgggn cgaccacgc gtcngttcc tttaatccgt 60  
aaaaaaaaac aaaaaaagtt ttgatttttc tctgtgagtt tgagtagtag taattaatag 120  
aaacaatgga ggttgattca agcaaggatc cgaaagtcta acgggtcaaa accaaaaaat 180  
tccggatgga gtcggcacga cttgtgggtg actacgcact tggcccgaga attgggtctg 240  
gttcgtttgc ggtggtgtgg ttagcgaagc atcgatcttc tggtttagaa gttgccgtca 300  
aagagattga taagaaactt cttagcccta aagtaagaga taatcttctt aaagagattt 360  
cgatccttag cacaatcgat catcctaata tcatccgatt ctacgaagca atcganactg 420  
gagataagga taattcctgg tgttganta atggtattgg aggggatctg ccng 474

<210> 1647

<211> 478

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E2-F5

<400> 1647

tantcgccgc ggcgtacaa gtcacagaat tcccgggncg acccacgcgt cancccacgc 60  
gtccgcggac gcgtgggtaa aacacaacc aaaaatggag ttactaacga cggtcgcgag 120  
ctttttcact ccgacgactc ttttctcct tcttaatctt atgatcggta caatcgtcgt 180  
aacctctcga ctcggtcag gttcaagaaa acattaccag catcacgatg gattcgggtc 240  
aggatcatgt ccggctccgt tagctagagc tccatcgatt atcgaccgag tcaagtccat 300  
caattttcat ctctacaaat ttcctcatcc agaaactgag cttttctcga tgacagctca 360  
ccacgacata atcgggtcgg atcttcatgt ttaccggat ccaaaccgg ctccgttaca 420  
acgtgctcct tctcttttgg attgggtcaa atncaacaac aaggtcctaa ttcaagtt 478

<210> 1648

<211> 476

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E2-F6

<400> 1648

taactttccg ccgnacaggt anaaggtcac ngaattcccg ggnccgatcg ttggccncct 60  
gtttccgttt tactcgacat cgttccgacg acttttgacc tggaatcgac gcagtgactt 120  
caattcaact attgcacttg gtttggtggc aatggacaaa ggagcacctc ctagtatttt 180  
tgtgaatgat gggtcattca tggaaagatt cagacagctt caacaggaga aagataaaga 240  
caaggataag gttgtccaag ttgaggattc taagccggtg aagattatat caaatcccaa 300  
acctgctgct aataaaattt ccattggatt aaagcccaat gatgcccaga agaaagggtg 360  
taagcttgct ttcagcttga agcaaaagtc taagcttctt gcacctcctg tgaagcttgg 420  
tacagaagaa gatgaggatg atgangatgt taaacatgaa caangcttgg attcgt 476

<210> 1649

<211> 469

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E2-D7

<400> 1649

cgcggnacgg tacaggtcan agaattcccg ggnccgacca cgcgtccnaa accctcctct 60  
cttcatcgac atctctcttt cactgcttca atggcgtctt ttgagcggtt tgacgacatg 120  
tgtgacctga gattgaaacc taagattctc cgaaaccttc tctccgaata tgttcccaac 180  
gagaagcagc ctctcaccaa ctttctatca ctctccaagg ttgtatcaac catctccaca 240  
cacaagctct tatctgagtc tctccagct tcaattgacc agaagcttca tgctaaatcg 300  
aatcagccg ttgatgattg ggttgctaga ttatcagctt tgatttcttc tgatatgccg 360  
gataaaagct ggggtgggtat ttgtttgatt ggagtaacat gtcaagaatg tagctcaaat 420  
tgtttcctta aagtnnaanc ccggttnggt ttaacagtta ttatcacat 469

<210> 1650

<211> 462

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E2-F9

<400> 1650  
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 ttaacgttta tactttatat acatcgaaag cttttcttct ttgtccgttc acatcatttt 120  
 cgaatttggtg ttttccctan aaattgtctt ttttttttct tttcttatag agaaaatcaa 180  
 gaaaatgtaa aaaagattga tatatttatt tattctcggt caaatgaatc actctttatt 240  
 tgactcggtg gtccatgtct cgtctcactc tcttaatctc ttttctctct canatctctc 300  
 aaaaagtgtg gttttgtgac anaaactgtt ttttaaagtt agctataaga agatgaggaa 360  
 gatcataggg tttagaatcg ggagacgagt ctcaagatgg atctttcgca aaanccggat 420  
 tcaacgttca ngatacnacc gggatacact cgatccaagc na 462

<210> 1651  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-G1

<400> 1651  
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 tcttttgtca tctctcttca cggcgattca actaacgtcg tctcaacgca aactccacc 120  
 accacgctct aaagacgccg atctctgcaa cggcgtgttc gtttcctaca cttacttaac 180  
 cggtagcaag attaaaccaa acgacacgaa gaaccagccg taccgggttcg aatcagagat 240  
 caccgtccta aacaacggcc gcgacgagct taaatcgtgg caagtctttg ttaaattcgc 300  
 ccaccgcgag attcttgttt cagcgaccaa cgctgttctc tctgacggtt ctaacctccc 360  
 ggctaacgtt gagaacggga aaatcctcgc cgggggtttc aancggg 407

<210> 1652  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-084-Q1-E1-C7

<400> 1652

aaaaaatata taccaaaata aaagannnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60  
 nnnnnnnnnn nnnnnnnnnn nnncgataaa tttttgttga ggaagaattt ttgttgtaaa 120  
 gagagtttaa ttaaattatg ccttcaatag aanatgagct gtttccgtca anccgggtaa 180  
 attcaaaatt gaccggtcaa accgtcagct ccaccgttgt ttcgcttcta cgagcaccat 240  
 gtttcttttg gctctcttcc tcatcgctct caccgcttcn tacttgagtt tccanagctt 300  
 ccgcgantcc ggtagccgtt atctaanceg cttcttgggg cggcattcaa gtgggagaaa 360  
 caggttcgta cttccgctca agatcnatcg cctccngggc ggatctccgt tccttggtac 420  
 cgggggcn 428

<210> 1653  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-084-Q1-E1-D10  
 <400> 1653

aaatcgaagc gtcggctact ggaattggta catctggaaa ccctccggcg tctaaatcgg 60  
 cgattgagtc ttacctaga gtcgaaatct cggattgcc aataggctcg gaggetaatt 120  
 gcgctgtttg cacggagatt ttcgagacgg anacggaggc gcgtgagatg ccgtgtaaac 180  
 accttttcca cgacgattgc atcgtaccgt ggctatcgat tcgaaactct tgtcccgtgt 240  
 gcanattcga gctagcttca aagccctaata cgacggagca anaacnncna ggagataac 300  
 cgccgntggg gatgacgatt tggagacttc ccggtggngg attcnncgta aggaggttta 360  
 acccagcaaa tgaaganacc gnccatgana agttttgcca agtgggggtt aacagtaaan 420  
 tg 422

<210> 1654  
 <211> 471  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-084-Q1-E1-D12  
 <400> 1654

tacgccgccg gtaccncgtc aaaaattccc ggggtccgac ccacgcgtcc gancatcatc 60  
aaggatcgaa aacattannt agctagttaa gaggagagag anagagatgg ngatgaacat 120  
tangtttcca gttatagact tgtctaagct caatggtgaa cagagagacc anaccatggc 180  
tttgatcgac gatgcttgct anaactgggg cttcttcgan ctggtgaacc atggactacc 240  
atatgatcta atgggcaaca ttgangagga tgacaaanga acactacacg anacatatgg 300  
aacaaaagtt canataaatg cttcgttcca aaggtttaga taccctcgag accgaagttg 360  
aagatgtcga ttgggaaatc actttctacc tccatcatct cncatcaatct aacctatacg 420  
acatccctga tatgtcaaat gaataccgat tgggcaattg aaggattttg g 471

<210> 1655  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-084-Q1-E1-E11

<400> 1655

ggagtctcta tcgtcgtcgt atccaaagct cttcaatgga gaccgatctc aagtcaacct 60  
ttctcaacgt ttattctggt ctcaagtctg accttcttca tgacccttcc ttccaattca 120  
ccaatgaatc tcgtctctgg gttgatcgga tgctggacta caatgtacgt gganggaaac 180  
tcaatcgggg tctctctggt gttgacagtt tcaaactttt gaagcaaggc aatgatttga 240  
ctgagcaaga ggttttcttc tcttgtgctc tcggttggtg cattgaatgg gntccaagct 300  
tatttccttg tgcttgagng atattatggg ataactctgt cactcaccgt gggtaaacc 360  
ttgctggttc agaagttcct caggntggta anggttgcca tcaacgattg ggatt 415

<210> 1656  
<211> 433  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-084-Q1-E1-E7

<400> 1656

acgcgtccgc tcatttctcg ttcttctgat tgatagatcg ctcggaactt ggaaagcagc 60

gtaatcggtgta gggagtgatt tgagttttgg tgaggatgtc tatggttgat gagcctttat 120  
 acccgattgc tgtgcttatac gacgagctaa aaaacgatga tttcagcgt agattgaact 180  
 ctattaaacg gctttctatc attgctcgtg ctcttggaga ggagaggaca agaaaagagt 240  
 tgattccatt tcttagtgag aacaatgacg atgacgatga ggtgcttttg gctatggcgg 300  
 aagagttggg gggttttatt ctgtatgtag gaggggttga agtatgcata tgttctgctt 360  
 ccacctttgg agactctatc cactgttgag gaaacttgcc gtgagggaga aagctgtgga 420  
 ttcactttgt aga 433

<210> 1657  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-084-Q1-E1-F11

<400> 1657  
 caacaccatc caaccaccac ctccagagca aagaannnnn nnnnnnnnnn nnnnnnnnnn 60  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnattc tgttggtttt 120  
 gcaatggttt ggaggttcgt taatggcgtc atagactcgg gagattaagg gagaacaagt 180  
 actctgcata ttctggattt ctactattt ctccttctct agaggaatag gcgagaaatt 240  
 gagattaata aaaaggggtg ttttttggtt ctccttcgtt tgtataaagc ctgccgcttc 300  
 ttaaggttct ttggaaattc tcaagtgatg gaggaaaatc tggtttactt cgcatagact 360  
 attaacgaaa tttcatcatg attgtctcac tgtcacactt gtgggagtat 410

<210> 1658  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-084-Q1-E1-F12

<400> 1658  
 acgcgtccna agaggccaag gtcatagcca agaaaccggg agtggtttca gtttttcttg 60  
 acccacactt ccagcttcat acaactcatt catgggactt tctcaagtac caaacatcag 120



taaagggtcga ttccgggtcca ccttcatcag cctcagatgg atcatatgat agcattgtcg 180  
 gaattcttga cacanggata tggccagagt cagagagttt caatgacaaa gacatgggtc 240  
 caattccgtc tccgttgaaa ggtacatgca tggaagcaaa ggacttcaag tcttccaact 300  
 gtaacaagaa agatcattgg agcaagatac tacaaaaatc ctgatgatga ttcagaatac 360  
 tataaccacaa nggatgtcat cggtcacggg tctcatgtgt cctccaacat agctggatct 420  
 gccgttgg 428

<210> 1659  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-084-Q1-E1-F6  
 <400> 1659

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 cttgagaaca cagttgtaga tgaaagtcaa agacaggctg ataatggatg ttccggtgaa 120  
 ttaagacacg agaagttcag tgaaggcact gccactgagt ctgatgatga taatgaacga 180  
 ggtgatgccg ccgaggtgga atttgatgag gaagaaaata ccttttttga tacacgtgat 240  
 tttctttctt caagttcttt caaggagtag tgggtctggt tttcgtacat cancattttc 300  
 gtccgatgaa gatngctttg aagtctgaag atganattga tccttccatc aagtcttatt 360  
 ggatgcaatt atcctcngcg tcaaagagga ggnaanaatt tagctggatc cgggttgana 420  
 a 421

<210> 1660  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-084-Q1-E1-F8  
 <400> 1660

aacgttaaga atcattgctt ttctcgagaa aataatattt ttaattgaat cgagaaactc 60  
 ttcaaagttg aattaagaag aatattacct caattgagat ttgagagaca cgcatagaga 120

gattgattat tgcacgaat caagcttggt ttgttagtaa tggcgggaat agcttttagtt 180  
 ttagatctac tgaagaaatc tcaatcnaag aacactctcc actcatcttc cttctattcc 240  
 gectccgccg ccgctgtttc tgctgccgcc tctgctcctt ttgcgtctag gtttctcttc 300  
 ggttcttttg agcctangag ttgcgtantg tgatgctgct gctgcaanag anatggattn 360  
 cccttggggtg gctatncngg nagaactgtc ngcggatggt tttgcagcgt tcaaccctt 420  
 gncgttagtt 430

<210> 1661  
 <211> 386  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-084-Q1-E1-F9  
 <400> 1661

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 aaaacaggca taagacattg aggaacttgt ttaaactctgt gaataatctt ttgatagaag 120  
 atgggttttag ttgggatgat actagacaga tggttggtgc tgataactgc gtttgggatg 180  
 agtatcttaa nattcatcct gattcgagat cttttcggat aaagtctata ccttgttaca 240  
 aagatctgtg cttggtttac tcaagatgga atgtctgagc acaaagcctg angagagtnt 300  
 taggtgangg aagaatccaa gacactgatt caggaagatg atgggtacaa cagcaatatg 360  
 tgaatcgtca acagtcangt ctaact 386

<210> 1662  
 <211> 472  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-084-Q1-E1-G10  
 <400> 1662

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 gcgtccgcaa acatggattc gatatagtaa tcagtgatgt tcatatgcct gacatggacy 120  
 gtttcaagct tcttgagcat gttggtctag agatggactt acctgttacc atgatgtctg 180

cgatgattc aaagagtgtg gttctaaagg gagtaacgca cggcgcggtt gattacctta 240  
tcaagcctgt acgtatggag gcacttaaga acatatggca gcatgtagtt aggaagagga 300  
gaagtgaatg gagtgtaccg gaacattctg ggagcattga ggagactggg cgaagagaca 360  
gcagcagcaa catanaggaa gtgggtgggtg tgcaactgtt tctgggtggaa angatgccgt 420  
ggatgataac tcatcctcgg ttaacgaagg taacaattgg aggagcactt ca 472

<210> 1663  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-084-Q1-E1-G8  
<400> 1663

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atttgaactg aaccttcacc gtccatcacc atctccggtg gatttcgtag gcatctacgg 120  
agcttacttg tttcaaagaa ccttggatgt tgtttccgat tctccgaaag ctctgtgttc 180  
tttagtttga tacctcagat attggatgcc cttgatataa cttaggtagc ttcttacaga 240  
ggaaggatat gtnagggttaa nttctgttca tttgcccttg gatggttgct acgatgnaac 300  
ttaantgctt caccccaacn cganaganga tgacganccg tatgtgagac atctanaagg 360  
acgattcttc ncgggatgan cgggatagag tctgctgttg aaatcgctag gacggaaacg 420  
tgaaac 426

<210> 1664  
<211> 490  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-084-Q1-E1-H8  
<400> 1664

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aaatctctct ctgccaatct catcttcaac ctctctctaa ctctcgtttt cgattctaca 120  
atggctgaca agaataattag gatcggaatc aacggattcg gaangaattg gtcgtttggt 180

tgctagagtt gttctccaga gggacnatgt tgagctcgtc gctgtcaang accccttcat 240  
 cactactgag tnnatgacct acatgttcaa gtacgacagt gttcacggtc aatggaaaca 300  
 caatgaactc aagatcaang atgagaagga cccttctctt cggngaagaa gncagtcact 360  
 gttttcgggc atcaggaacc ctgaggatat cccatgggccc gaangctgga gctgantacn 420  
 ttgttgagtc tactggntgt cntcactgac aaagacaagg ctgcagctcn acttgaangg 480  
 tgggtgccaa 490

<210> 1665  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E1-A10

<400> 1665  
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 ctgaagaacc gtgcgagaag ctgaagcaga cgccggagga ggagcancag cttgtaatta 180  
 agaatcagga taancaagga nacgttgann aagttgaata cgatgaanta gaggaanagc 240  
 aagaagaana agtacgaann nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
 nnnnnnnnnn nnnnnnnnnn nnnnnnngcg acctctggat ctggcaatca anangatgaa 360  
 tgacgatgac ccaantcaag atctgttgga accattttca aaagggagca agttttgagt 420  
 ccctc 425

<210> 1666  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-084-Q1-E1-C6

<400> 1666  
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 tgtcaggggt tgtgatgctt ccctcttgat cgaccaaga cctggaaggc catcagagaa 120

aagcactgga ccaaattgcaa gcgtgagagg ctacgagatc attgatgagg ctaagagaca 180  
gctcgaggct gcatgtcccc gaactgtctc atgencagac attgtaactc ttgccacaag 240  
anactcggtc gcattagctg gtgggtccaag gttctcagta ccaacaggaa gacgtgatgg 300  
attaaggtca aacccaatg atgtgaactt acccggacca ncaattccgg gttagcgcat 360  
ctatccaatt gtttgcantc caaggtatga ataccaacga tatggttaca cttattg 417

<210> 1667  
<211> 522  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-H12  
<400> 1667

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agacgaagaa cgaggcgagt agcagccgtg gtggcatcgg cggagagagt atagtcgctg 120  
attgtggacg aaataaatca acttgcggtt actgtaaate ttctaccgcg tttagtattt 180  
ctcacggttt atgggacaga agagaactcac cgttaatgac tatcaagctc ttcttgacag 240  
tggatggaga cgatctggct gctatcttta caaacctgag atggagaaaag acttggttgc 300  
cttcttatac aatcccgtt gaaaagcaag tgattttgtc cttctaaagg gagcaacaac 360  
gagtgcgtag aagaataaga aanggttttg gatggtgaaa ctaagatgcg aaaccngatt 420  
gagcaagaca gaaagattca agaantcccc tttccccct tgaagtttcc agtgtcagnn 480  
gaaaaaatcc acttggganc tggctaaaag gagaaaaaaa cc 522

<210> 1668  
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ctcccatcat tctcatttct ctcttctaata tctttcatgg aattttcagg ttagaagaag 180

attccgggca gattatctgt tgattcgaag aataccgaat acgcgtttga aatttctgaa 240  
gaattatggg atacttggac ttggccttgt cgtattccaa ccagccgcag actgttgaag 300  
ctccagcgag cggaggaggt ctccagccaga atggaaaatt tagctatgga tatgcaagct 360  
ccgctggcaa gagatcatct atggaagact tttttgaaac tagggatcga cggatatcaat 420  
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<210> 1669  
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<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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cacgtattcc aatccaaatc gacaatatac gcgtcncctga tggatatggt ttggnnttcag 180  
tgagaaacag agattgattt tggttttctt taatcatggt ggagccttat gagacacgta 240  
acaacggtga agcatcccag atgatcaaga tatcagagtt ataaccatca caanttcag 300  
gactaacatc ttcattaatc atcgccattg cntgnatttg anagtgttcc atgtcaggnt 360  
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<210> 1670  
<211> 428  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-084-Q1-E1-A12

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gcgatcgctt ccgcccagct tattttcgag gagcgctttg atgatggntg ggagaacaga 180  
tgggttaaat ctgagtggna gaaggatgat aacactgctg gggagtggaa gcacactgcy 240



ttactcacat ggaatgtctg agcacaanag ctgaggagag tatnagttag gggagaatcc 360  
aagacactga ttcaggaang atgatggggt acaaccagna taagtgaatc cgtcaacaat 420  
caagtcttaa ctcaanaagg aagccactnt cacaccgggg ca 462

<210> 1673  
<211> 485  
<212> DNA  
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<223> unsure at all n locations  
<223> Clone ID: LIB22-084-Q1-E1-B2  
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tgagttagag atatatacac atatatacac acagagggac aaggaaagag attgggatat 180  
gcgagtgcgc atcggttctg tcggaacggc taactcgctt gacctagggt ttcgtcttcc 240  
ttgtgcttcg tggagttttt cgaatgggag aaagaacctt ttgctttctt aaccgtgttc 300  
tatatttttg ggagttgtca taagtaaagc agtatgacgc ttgaagattt ctttacccta 360  
acagaaataa aagatggact cacggtcact tctcgtgttg aagaacttgt gtctgtttat 420  
gcagaagtaa taaaggattc agttttgaag aatagtggng atgcntttta gacaatggga 480  
ctgct 485

<210> 1674  
<211> 491  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-084-Q1-E1-B3  
<400> 1674

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tctgcctcaa tcgccctgtt cttagcgaca ccgatgaaga ggacattctt ctcacaggaa 180  
tcaanagcta cagaacaaca cagaatctaa caatcttaag caagaacgaa nacgcagaat 240



gcctagctga cgaaatcgca gaccaattca agaacaaacc cttgtagaac gacactgggt 300  
cagccacagt acctggaact gagccacagt tgcgaaacta ccctcaagat tctagcanaa 360  
atgcnacttt gaanggtcnc agncacgaga gacgggctcg attatgcctg catgtgttcc 420  
tccgtttaga atcaaactcg tcctcanaaa cntcaccaag tacaatactc aatgagtttg 480  
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<210> 1675  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-084-Q1-E1-B6

<400> 1675

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ctcacccta cgccgacgaa ttcaaaccac aacaaaactc cgattactcc tccttcagag 180  
aatctccaat gtccgtaac gccgaacaat gcagatcttc eggcgaagat tccggggtct 240  
gtaaccctaa tctcgtnac gtagccatca ctctcgacat cgattacctc cgtggntcaa 300  
tcgnagecgt caaatcgatt ctccangcac tcaatgtgcc tcaaaancgg tcttcntcca 360  
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<210> 1676  
<211> 473  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-084-Q1-E1-B7

<400> 1676

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aatgcattag ctcatgtttt agcgagaagt agctgcttca tccccaaacc ttattccttt 180  
agagatacta agctgagaag cagatccaat gtcgtattcg cgtgcaatga taataagaac 240

attgctcttc aagctaaggt agataacttg ttggaccgca ttaaattggga tgacaaagga 300  
 ttagctgtgg caatagcaca aaacgttgat acgggagcag tattgatgca aggctttgtt 360  
 aatagggagg ccctctccac aaccatcagt tctcggaag ctacattctt tagtcgatca 420  
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<210> 1677  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-084-Q1-E1-B9  
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 agtcaatgag cgaaatggcg gctagctcgg caatctctct tctcgatata aaactccgac 180  
 gattcggcgt tggcgcaagt aaccatgaat tgcgccctaac taagtgggtc aaaggatgatc 240  
 aagccggagc tccgacgaga agattcacct gcttcgcaga tatgttggca ccgattcgcc 300  
 gctctgagaa gtcagaggaa cggcgttttg atcagaagat gagggtcac ggtgccggga 360  
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<210> 1678  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-084-Q1-E1-C10  
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 gaacttctac aaggacacgt gtcctcaggc cgaagacatc gtccgtgaac aagtcaaact 180  
 cctctacaaa cgccacaaga acaccgcttt ctcttggtc cgtaacatct tccannactg 240  
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agagaaagaa cacgacagga gcttcgggac ctacaaactt naggtacatc caaggaagat 360  
naaaggaagc tctccagacn ggaagtgtcc ctgcgtgttt gtcncatgt tctggaca 418

<210> 1679  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: LIB22-084-Q1-E1-C11  
  
<400> 1679

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cgcggtggtct cgtttgagac tggaaaaatc gctcgctttg ctaatggttc aagttgttct 300  
cggcatggac gagaccaaag ttctctctac tggtacttgt gctaagaccg actcgctctg 360  
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<210> 1680  
<211> 517  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-G3  
  
<400> 1680

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tttactctca ttcgtttgcg ttgatgtagc aaaacaaaaa ccaaatggt tcccgtctcg 180  
ttctgcttct tctttctcct tctcttgctc tctgctggag agagttcatc gcaattagtt 240  
tctggtccac acatcaccga tgtaacata ctcttacctc ccaagatgaa gaatccggtt 300  
gagtatcgcc ttcaaggaag tgatggctgc ttcaaatggt catgggatca tcatgatatt 360  
ctaacagtca cacctgagtt taattcgagc agtcattgtt cgaccaacgc gcgtcctcaa 420

atnaattcnc cgtnantgg gtanaaagga naacggcaat ttatgccact gatatacnan 480  
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<210> 1681  
<211> 482  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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aaacctact tcattccttc atcatcgtct ccaatcatta cccaaagatc cgtctttttc 240  
tttacttcat gtcgaaagca aacgtacaaa gtgtgttnen gctttcgccg gaggttccgt 300  
tacactgcat cggagggcac cgcgtgagat taaagacaat ttccgaaaag tactcagaga 360  
atgggagtta tgaccgttga ttaatencac aggttccnga tncgaggttc agaancaaga 420  
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ta 482

<210> 1682  
<211> 447  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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tgcgcctctc atgcctcat ttcaaaaccc ttcatttggg gaggcattgca caaggagtcc 180  
acaatatagc attagaagag aagggagaga aacctgaatc agaaaagctt tttgacgccc 240  
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gattacttaa cactgtcgag ttagtgataa cctctccgct gtgcagagca atggaaactt 360  
 caataggaat atttagggga caaggatatg taaatatatc cgaagacttt gcaaaagcta 420  
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<210> 1683  
 <211> 558  
 <212> DNA  
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 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E2-F1  
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 tgctgttcgc actctgctat cttcaattcc tgcatttatc ttgaactgcg attgtttgtt 240  
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 ttcccggggg ttttnantcc gngggttcaa atngaantca ncgaattccn ccaaggataa 540  
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<210> 1684  
 <211> 403  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 <223> Clone ID: LIB22-083-Q1-E2-F10  
 <400> 1684

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tacgcgacga aatcttgccg tggaatctct ctcaagactc aagagctcta tgcgcttggtg 240  
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 gtgaggaggt canacgataa aggacctgga cacatttncg tca 403

<210> 1685  
 <211> 458  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-083-Q1-E2-F11  
 <400> 1685

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 tctacaagcc tttggtgctg accagctoga ctacgacc 458

<210> 1686  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E2-F12  
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 aatgcatttc cttttaccac caaatcggtc ttttctacaa tagctaaaga ttcgagtcca 180  
 aagggaagta ctttcacagt ctcttatctc gttgaatcat tgggtttgac taaaaaactt 240  
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caaagcttca gtttttaaag tctagaggag cttcaagctc tgaggtcata gagattgttt 360  
 cgaatgttcc aacaatcttg gataagaaag agggaaagaa aggtaacaga attcgaaata 420  
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<210> 1687  
 <211> 481  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E2-F3  
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 gtgtggtgat tttacctccg gaagtgaagc cttgggcgat ttgcttcatt ggtatgcttg 300  
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 caaacgcggg cgttttaaga aaggctanat tgggttttga ttacatggga agataaaaaa 420  
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 a 481

<210> 1688  
 <211> 542  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tgtccccggt tgatnagtan catcggtacc aaggaaanac gtacaactta tgaagaaata 480  
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<210> 1689  
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 <212> DNA  
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 <223> Clone ID: LIB22-083-Q1-E2-F8  
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<210> 1690  
 <211> 459  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-083-Q1-E2-F9  
 <400> 1690

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<211> 460  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-083-Q1-E2-G11  
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<210> 1692  
<211> 513  
<212> DNA  
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ttatatttctc tgagactagc tttgattcan ccatggctaa tgcagcatca ggaatggcag 180  
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tcatttaciaa gattgaggag ctgcagaaac aagtgattgt tgagaaaatc ggtgaaccgg 300  
gtcaaaccce tgaggacctt gctgcaagtc ttccagctga tgaatgccgc tatgccattt 360  
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ggtctccgga cacagcanga gtgagaagca agatgatcta tgcgagctcc aaggacaagt 480  
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<210> 1693  
<211> 542  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-G2  
<400> 1693

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cttgctcggt ctcaagtgcg ctcccgaagc ttctgatccc gtcatectct ccaacgcttc 240  
ggacgtctct cacttcggtt atttccagcg atctagcgtc aaggagttcg tcgtctttgt 300  
cggctgcact gtcgctagcc gaacccctcc ttcccaacgc cagtctgttc aacacgaaga 360  
gtacaangtt cacgcttaca atagaaatgg cctttgcgcg gtgggtttca tggacgatca 420  
ttaccctggg tcgaagtgct ttctctcctt ctcaatcaag tcctagatga gtacaagaag 480  
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ta 542

<210> 1694  
<211> 486  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 1694

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tttggtttgc aatggaaaaga gattttctgg gtttgagcga caagcagtat ctaagtaata 180

acgttaagca tgaggttaac gatgatgctg tcgaagaacg agggttaagt acgaaggcag 240

ctagagaatg ggggaagtca aagggttttg ctacttcaag tttcatgcct tcttcagatt 300

tccaggaggc taaggcgttt ccgggtgcat accagtgggg atcagtttct gcggccaatg 360

tttccgcaga tgccaatttg gtggtgcgtt caaaacgccg acgcccgtt ttacnaaggc 420

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tatccc 486

<210> 1695

<211> 439

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-083-Q1-E1-A6

<400> 1695

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gagaagctta acaagtttct gagatggaga gttcaggttt tgganagagg tgtaaaaatg 120

cttcatttta aacctggtgg tgtaattcc attantcaag ttacagatct taangatatg 180

ccctaagang agagcttaga gttgcttcta aatcagatcc tctctcnntt ttcaagataa 240

ttacctgan nttggnrtgt actaagatat tcacaanacg tgcccttggtta cttcagtggg 300

gatctanacan agttcagccc attcctgact cagagaacac cgancaagtt tgtgatgtcc 360

aaacgaaggc aatgcagcca agaaacactc ctacaanttc cattancgcc acaagatatt 420

ccgggtgccca tacggggggg 439

<210> 1696

<211> 466

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-B6

<400> 1696

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 acaaccgggtt ggacaaataa gggaagcatc taataaggca aactactgcag aactcaagct 180  
 ttttttggaa gtagagcacc tggattttacg tcctattcct cctcctgaaa aatcaaaaaga 240  
 agatattctt cttttcttca agcttttatga ccccgagaag gcagtattaa gctatgctgg 300  
 caggctgatg ggtgaaaagt tccagtaagc ctatggatat aactggaaaa ctgaaatgaa 360  
 atggttgggc tttgctcctg gatgaagaaa tagaactttt gaggaaatca ngtttgnacc 420  
 ttgtgttatg tgcgaacact tggataagaa aactcaatca gattgt 466

<210> 1697  
 <211> 466  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-B7

<400> 1697

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 acaacaatat atacatataa tagtttgtcg ttatgcctgg ctccctgtat gccacgagtg 180  
 gataccgatt ttggttttta aatcggtgc cgggtggcgta caaggagtca agcatgacca 240  
 gaagcatatg gtaactcaat tgcacttaca actaaatatg aaatatctag ttatgtatat 300  
 ggtttgtgtt ctataagatg ttttcttcga attttgattt ttgtgttcca tttgaataag 360  
 caaacanaan taanaccaag ttttgtagtt ttttgctttc tttctgattt ggtccagtgc 420  
 nttgattcag gttttgagtt gaattccttt aaattcatat tgnntt 466

<210> 1698  
 <211> 504  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E1-C11

<400> 1698

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gggtacgacg gctccaggtt tgccttacgt agacgaggcg ataactaatg ctggaaactg 120  
gctcattggg ggtgatcttg aggttcttga gccagtgaag tacaatgatg ggcttgatcg 180  
tttcaggctt tcgcctgctg agttacgtaa agagttggag aagcgtaatg cggatgcggg 240  
gtttgctttc cagctgagga atcctgttca taatggtcac gctcttctta tgactgatac 300  
tcgtaggaga cttcttgana tgggttacia aaaccctatt cntttgcttc atccgttagg 360  
tgggtttaca aaaggctgat gatgttcctt taagatttgg aggatgaaag caacacgaga 420  
aggttctaag aggatggtgg tccncaatcc ggaaaactaa aagtggtttc natattcccc 480  
gtcacctat gcaattaccn cggg 504

<210> 1699  
<211> 460  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E1-C12

<400> 1699

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ctgaattgaa tgaggttctc acaagagagc tagcagagga tggttactct ggtgttgagg 180  
ttaggggttac tccaatgagg actgagatta tcatcangag ctactcgtac tcagaatggt 240  
cttggtgaga aggggaggag aattacggaa ttgacatctc ttgtccanaa gagattcaag 300  
tttccaantt gacagtgttg agctccaatg ctgagaangt taacaacaan aggtcctctg 360  
tgccaattgc tcaagcctga gtctctaagg ttacangctt tccccggtgg tccttgctgg 420  
ttcgcaaggg ccctgttanc ggtgttttga ngatttggtg 460

<210> 1700  
<211> 485  
<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-083-Q1-E1-C3

<400> 1700

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taatcttagt tttcgtgat tttgagtaag ttatcgacat ggatattgat gtcggaccag 120  
ttgatccatc tgtcctatac gagcaagacc tccatgtttc ttctgctggt tgggaaggac 180  
aggaacgagg tctacttcgt tgtcaagaac acacttcatt gctacatcaa tggaaactca 240  
ctgatgaaca aattaacctc gtggacaaag ctgggttcgg ttactttcgc aaaatcgggc 300  
caatgagttt aaacaattca ctgatctctg cacttggtga gcgatggaga agagaaacca 360  
atacttttca tcttccttta cgagaaatga ctataacctt agacgaagtt gcttttagtac 420  
ttggacttga gattgatgga gattccaatg gttgggtcca aanttggtga tgaaggttgc 480  
tatgn 485

<210> 1701

<211> 434

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-083-Q1-E1-C7

<400> 1701

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cgcgattatc ttcgtgggaa tcaacaactg ttcaacagta caaccgatgg ttgcagtgga 180  
aagaacagtg ttctacagag aaagagcagc aggaatgtac tcagccatgc catatgccat 240  
ctctcaagtc acttgtgagc ttccctatgt ccttattcaa accgtttact actcaancat 300  
ggcgtagacg aaaagttcnt ctgggttcgt cntcggttaag ctacttctca ttcccttact 360  
gggacttact acngcatgat gactgtttcc ctcaacacca agancntcna agtcgcttcg 420  
atTTTTcggc tcaa 434

<210> 1702

<211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-C8

<400> 1702

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tgtatgagag agtgttttgg gatgaanaga agcttaacan gtttctgaga tggagagttc 120
aggtttttga gagaggtggt aaaatgcttc attttaaacc tgggtggtgtt aattccatta 180
ttcaagttac agatcttaaa gatatgccta agagagagct tagagttgct tctaatacaga 240
tcctctctct ttttcaagat aattaccctg aattgggtgc tactaagata ttcataaacg 300
tgccttggtg cttcagtggt atctactcaa tgttcagccc attcctgact cagagaaaaca 360
nagagcaagt ttgtgatgtc caangaacgg caatgcagna gaaacactcc tacaagttca 420
ttangcca 428
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<210> 1703  
 <211> 500  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-D10

<400> 1703

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tagtgaacgc tcaaagaaag cacttgaac aaatgatact gcccaatgtt ttggaactag 180
aggaggttga tccctttttc gatcgtgact cagtggattt ttctctacgc atcaaaaaaac 240
gccttgagga atcaaaaaag ctgcagagag atcttcagaa tcgtatcaga aaacgtatga 300
aaaantttgg tgaagaaaag ctttttggtc aaaagactcc agaaggtgaa nctgtcaggg 360
gatttcctga agcagaggtg aantggatgt ttggananaa agaggtgggt gttccaaaag 420
ctatccagct ccctctacgc ccatggttgg aaaaangtgg cagggaacaa accacaagcc 480
gatttaaaac ataaactttg 500
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<210> 1704  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-D4  
  
 <400> 1704  
  
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 attcaaagtg gacaaacatc ggtattttta tctcctctcg ataatgaagt gtttcttggt 180  
 ctctgggtggg gataagagag gggaacagaa gaccttatt tcggtttcat tgacctctat 240  
 cttctctgac cgcgaaataa accgaagcgg gtcagagttc aactctcgtg atgtctctgg 300  
 gacgagcaca ngaatcatcc atggggagga agaactcgta ccctccggtg tctactagag 360  
 caagtaatct caagagagtt cagcattact gatctcaagt ctgcaacaaa ggaactttta 420  
 gccgatctgt tatgattggn gaangcgggt tcnggtttgt gtcntcaggg ggcac 475

<210> 1705  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-D6  
  
 <400> 1705  
  
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 gataaactct ctcgattacc taatactacg tcgtattaca tcgttcacag annnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnngg cgggtgaagga tcatcggaga 240  
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 gctttangtg gaggattaan gaaaagcaga tctatggctc atgttcccaa ggattatatt 360  
 gttagggatt tgacnaagaa gaagacggag aaattgaaat ctacgacggt taagaagaag 420  
 actgggtttt ggactaagtt gcttcacnt aaagggaaa gcggtgg 467



<210> 1706  
 <211> 471  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-D7  
  
 <400> 1706  
  
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 tgcttcagct agcaaagatc ctttactcaa gaggtttttc gatcaccatc atccacacgc 180  
 gcttcaacgc gcccaaactc tcagaccatc ctctcttcac tttcttaca atccgcgacg 240  
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 acaattgtca gatcccatth cgagagtgtt tggctaaact cattaaacct agttcaagat 360  
 tcaggaacag aggatangaa aattagctgt gtgatcgatg attccggttg ggttttcaca 420  
 caatccgtgg ccgngaggtt ttaantcttc ctcgatttgg tccctcgggt g 471

<210> 1707  
 <211> 461  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 1707  
  
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 caatgatggt ttataccggt ttcgtttatc tccgtcgcag ctgcgggagg agtttataa 180  
 gcgcggtgcg gacncggttt tcgcgttcca gcttatgaac ccggtgcata anggtcatgc 240  
 gcttcttatg acggatacnc gtacaagact tcttgagatg ggttanaaaa accctgtctt 300  
 gttgttgaat ccacttgng ggtttacgaa ggctgatgat gtacctctca gctggcgtat 360  
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<210> 1708  
 <211> 477  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E2-H7  
  
 <400> 1708

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caccgcaaga atctctttct ctaacgcttt ctcacgcaa acctcagacc tcttctcctt 240
cctctccatc caccaccgtt tcttctccta aatctccatt tcgtctccgt ttccagaaac 300
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tctcctccgg gaggtgtttt aaagaggaaa cgacctacaa ggcttgatat agcgattggg 420
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<210> 1709  
 <211> 508  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 1709

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ccgaattcgg accttctcaa gccattcaaa ggcgctagaa tcaccggatc tcttcacatg 240
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gccgtgtttt tcgcctggaa aggtgagact cctcangagt actggtggtg ttaccgaacg 420
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508

<210> 1710  
<211> 522  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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aanatggcgc ttatgaatgg aagcatgaat ctatcatcgg tcaaatcatc gatgatcaac 180  
cacggtcaac caaacttctc ctccgccgtc tccagacca cttctttccg gatctccgcc 240  
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<210> 1711  
<211> 520  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: LIB22-082-Q1-E2-G3  
  
<400> 1711

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ttgctacatt ttcctgggtc tgggtcttgg tttgatcatg tctggggcaa ttcgtgtccg 180  
tgatgacatg ctctcgcag cttctgaagc attggccgca caagtgcag aagagcatta 240  
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agcctgtgtc gccgcaaaa cctatgacct cggattggcg tcgaacctgc cacgtgcaaa 360  
ggatcttgtc aagtttgcag agaacagcat gtacagccct gtgtacagaa actaacgtta 420

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<210> 1712  
<211> 476  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-082-Q1-E2-G4  
<400> 1712

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cccagccgga tatagaaaga agaaacagag gaaatttggt cataaaggag gtacatatat 180  
acacatacaa gtctctgtga aatatgacat ctcagctaaa acgaacttta accaagagat 240  
acggtgttct tgaactgtgg gagatcatag tgattgctct ctttgcagcc ttcatagtaa 300  
tccttgtcct ttcagtttgg ctcagcttcc gtaaaaagtc caaaagatct aatgctacaa 360  
cgcttcctgt aactcaaagc cctcgcttta ccgaagaaaa taaaagaaat aagtgttgat 420  
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<210> 1713  
<211> 518  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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gttcttattg gttgcatcgt tatgctcgtt tggaggagat ccggttctgg gaattcanaa 420  
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<210> 1714  
 <211> 519  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 ttttgggtgc aagatttgga atttgaatct gtagtaagat tcaggtttag tgggggaggg 180  
 aacaagttgg aagcttttgc tagttttgtc aaaggtgtca ctaaagtact aactatcaga 240  
 aaacattttc agccagaagc ttggtgatgt atcttcagat tttcaacaac ccatctcatg 300  
 gcttagctca tttatgctac tctagtcggg tttcgtgtag ggtaagactg agtcgtgtcc 360  
 ttgccatgcc accgtcttca gtccctcttg atatggacga aagcaatgat cttcccaagc 420  
 ccaagaaggg tttttgtctg aggtgaagat tcgagaanca gtttaaacag tcctcctgna 480  
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<210> 1715  
 <211> 505  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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<210> 1721  
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<400> 1722

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<223> Clone ID: LIB22-082-Q1-E2-E2

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<210> 1724

<211> 498

<212> DNA

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<210> 1725

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 aatttcgata acctctactg aggcattccaa atgttgaacg gaaaagaaga gcctaagcag 180  
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495

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 cagcctggga gaggtgggtt ttccattttg ctcaactacg ccagctgcct gttcttgtcc 300  
 catatatgcc tacggataac ccaaggctta aggatactgt gtatgagggt gctctagttg 360  
 cactancaac caatccctca taccacaagg agcttttgtc ancggttaaa tcttggccac 420  
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<210> 1738  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tcgtcgacga cgantttctc accaaatacg acatcaagtt gaagantgng attctcgcg 180  
 gagacgaaca tttgcccatg tnngatgaga tgagtagcaa gttcaatgtt gaatacattg 240  
 ccggaggtgc tactcagnac tcanncaaag tggctcagtg gatgcttcaa attcctgggg 300

caaccantta catgggatcc attggaaagg acaaatatgg anaggccatg aagaangatg 360  
ctacantgct ggattcgtcc tcacagtatc gcctgaatcc a 401

<210> 1739  
<211> 401  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 1739

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agcttctcta gacatatgga agtatgtctt tgggtttgca gatatagcag ctgcaaagtg 120  
tgccattgat cttaaaatac cagaagccat tgaaaacccat cttctttcac agcccgtaac 180  
actagccgaa ctctcctccg ccgtctccgc ctctccctcg catcnccgcc gtataatgan 240  
gtttcttgta caccaaggaa tctttaaaga aatccccaca aaagatgggt tagctacagg 300  
ctacgttaat acgccactct ctccgcgttt gatgatcaca agacgtgatg gaaaatcgct 360  
ggctcctttt gttctcttcg aaacaactcc cgagatgctc g 401

<210> 1740  
<211> 412  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-082-Q1-E1-A9  
  
<400> 1740

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tattatgtga acctcaagga gaacaaagga cttatccaga gcgaccaaga gttattctct 120  
agccctgatg cttcagacac tcttccttta gtccgagaat acgctgatgg tcaagggaaa 180  
tttttcgatg cgttcgcgaa ggcaatgata aggatgagta gtctttcacc tttaacaggg 240  
aaacaaggag aaataagatt gaactgtana gtggtgaatt cgaaatctaa aatcatggat 300  
gtggtagaag atgctcttga atttgcaagc tcaatggtga ggaaatgttt ttctttaaca 360  
ataaataaat tatcaatggt tgtcaaagaa gttaaccttt tttcctaact cc 412

<210> 1741  
 <211> 451  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-082-Q1-E1-B7

<400> 1741

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cgttcatcat ctccgggccg ataccagtgt gcgtttggat cggggttgaca tgagcctcga 120
caggggtgatt cagcaagtgg gttccatgaa aattggggga ggtggcttga tatcagaggc 180
catgaagaga gccgaggcta tggagattga gaccaacgac gattcggaga aatttgggggt 240
tggattggaa ttgggaaagg ttaaggttaa gaagatgatg ttccaatctc aaggaggggt 300
ttttgggatc agtggaaagg gcggtgttgg taaaaccact cttgccaaag aacttcaacg 360
ggaccatgaa gtccaatgtc actttgagaa ccggattttg tttctgactg tatcacaatc 420
tccgcttctt gaggagctga gggaacttat a 451
```

<210> 1742  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E1-B9

<400> 1742

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caacatcaac cacaccacca attcctcaag gatcaatctc ccaattctcg tctaccaacc 120
aaaatcattc tacccaataa gaaacctgag aaatgggtcca ccggagttgc tcccggagag 180
tacggtggtc ctccgactac caccaagctc cgaaagtact ggggaggtga aaaagaagat 240
cccattactt ccacagactt aatctggaac agagatttta tggatcaaata gaagaaattg 300
tttgatgatc ctaatgattc ttctctcgac ncatctcctt caaaggaaaa gtcttctggg 360
tttctgagct ttagcagagt tatgagtctt gacaagtatg gatgttgatt taaagtnaag 420
aacctgcac ntcctcca 438
```

<210> 1743  
 <211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E1-C11

<400> 1743  
  
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 nnnnnnnnnn nngaggatcc acatcgtgtg gtactgctgg agctctatac gcgttgatag 240  
 ccgtagtaac tgggtgtgca tgtatatact catgtttcta tcgtggaaag atgagagctc 300  
 aatataatat taaaggagat gattgtactg attgccttaa acatttctgc tgtgancttt 360  
 gttcctttga cccaacaata acggtgaact caancaccgc ggttacaat 409

<210> 1744  
 <211> 469  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E1-C2

<400> 1744  
  
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 atcgcagaac atttttgttn aaatggcata nataataatc aataacaccc ttgtccaggg 120  
 atttttgatt ctctcttttg gttttctcgg gaaaaaatgt ctgcgatact ccaagggagc 180  
 tgganctgca acggctctct cgccgttnaa ntctatcgat tccaacaaac tcgttgctcc 240  
 ttctcgtctt tctcttttcag tgaggagcaa gagatacatt gttgccggat ctgataataa 300  
 aagctttggg tctagcctcg gtanctcgtc gctctgagcc cttgatacca aatgctgtta 360  
 cnacgaatgc ggacactgct gcgagctcta cttcatcaaa gcctggacat gagctattac 420  
 ntctcgaggc tcctcaagaa ngcttagaaa gaagagatgg acagagatt 469

<210> 1745  
 <211> 403

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E1-C6  
  
 <400> 1745  
  
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 agaacgcctt gctaggaacc aggatgttcc tcaggagtac acatactatg gcateccatc 120  
 tccttggtc caggttaagg caatgagggc tcttcaatat tttccaacca ttgangatcc 180  
 cagtaccaag aaaagctctc tttgaggtcc ttcagcgaat attgatgggc acagatgttg 240  
 tgaaaaatgt gaataaaaac aatgcgtctc atgccgtgct gtttgaagct ctctccctgg 300  
 tcatgcatct tgatgctgag aaggaaatga tgtcacagtg tgttgccttt cttggcaagt 360  
 ttatttctgt ccgtgagccc aacatcaaga tatctangct tgg 403

<210> 1746  
 <211> 364  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E1-C8  
  
 <400> 1746  
  
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 catacaataa gatcccatgg agtaacagtc gcgaggttcc acatgcatga ctgggtcatt 180  
 cttctgctgc taatantcat tgaaattggt cttaatgtca tcganccctt tcatcgtttt 240  
 gttggngaana atatgctcac tgatctcaga taccctctgc aggnnnancca canttccctt 300  
 ctgggctgtc ccgttgatag ctgttggtgt acnttttgct gtcattttgtg tttancactt 360  
 catt 364

<210> 1747  
 <211> 460  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations

<223> Clone ID: LIB22-082-Q1-E1-C9

<400> 1747

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aaagagagat gggttaatan gatttgaagg tgggtgtgat gggcaagtct tagatctgga 180  
tactgcagtg aaannnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnagaaattg gatctgaaga agatgataaa ggagctagat ttacaagata taccttctgt 300  
tttcatttgt cctatctcct tagagccgat gcaaggatcc tgtgactttg tgtactggtc 360  
aaacctatga aaggttaaac attcacaat ggtttaacct aggtcaattg acttgtccta 420  
ctacaatgca agaacttttg gggatgatac ngtaactccc 460

<210> 1748

<211> 465

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-082-Q1-E1-D11

<400> 1748

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cttgttatac acatttaatg gagtttacac tagggacagt gaaatgagtt cttcattgac 120  
tttgacttgc actgacggtg ctccctgcctt aaaacaaaga accatcggtc tcgctaacac 180  
ccacttgtcg attccctcgc agctcatctc catgtaccag cttcctcata agatagctct 240  
ttgtttgcct tccaccgaac gaagtcagtc tcataatggg gacctttgga tcggtaaagg 300  
ggaatattat tatctgcctt acgataaaga tgtctctaag atctttgcct ccacgcctct 360  
gatcggtaat ggcaagtccg gcgagtactt aatcgatgtg aagtccatcc aaatcgggtgc 420  
anaagaccgt tccctatacc ctanggagcc acaaaggatt ancaa 465

<210> 1749

<211> 407

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-082-Q1-E1-A2

<400> 1749

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aaagggttcgc cttcttgata anctttcnct ttgcagcaca atatgagcgt gtctacgctg 120  
gtagctttca caaggacggt cagatacatt ggggtgatgg ccgtggaaaa attctcgaca 180  
atgtcggaaa tcttctttct ctctcgctcg acaaattctc tggttccggt ttccagtcct 240  
atcaagagtt tctttatggc aaagtagagg ttcaaatgaa acttgtacct ggtaactctg 300  
ctggaacagt gacaacattc tatctaaaat ctctggaac tacatgggat gaaatagatt 360  
ttgagttctt gggaaacata agtgggtcatc catatactct tcatact 407

<210> 1750

<211> 455

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-082-Q1-E1-D2

<400> 1750

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agattcttag ctttccgggg agttttgggt aagaaaaaga cggagtcaca gccaccgtca 120  
cccctgagta caaggnacta tcagaatggt gctgctaata ccccaaaggt tcgtcaatca 180  
agaccttcac cagtagctat gaagaagacg ccagttccag aagcgaacaa atctttacac 240  
tctttatcgt ctgatggaat ctctattgac ctcaacgggc agaattgatc ttttaaccat 300  
aagcaggaga agccatcgcg aactgttcct ctatcccaa acagcatggc tgatcgtggg 360  
aaacccttat caccacgacc tcaagggcat gaacacagtg gcaagaatna cacagccaag 420  
tgaagattag tttgtttaat gttgtaagcc ctcca 455

<210> 1751

<211> 421

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E2-E5

<400> 1751

acgcgtccgc ggacgcgtgg gcggacgcgt gggggaagag gctaggagga tgatggataa 60  
nnatcaacaa ggccgcggat aaatccgaag tagtcnatat aagtgcgtt atgttgacct 120  
tcacgaactc ggttgtgtgt agacaagcgt tcgggaagaa gtacaatgaa gatggataan 180  
gagatgaaga ggttcatcaa gattctttat gggactcaaa gcgttttggg gaagatcntt 240  
ttctctgatt ttttcccata ttgtggcttt cttgatgatt tancaggcct cacagcttat 300  
atgaaagagt gtttcgaaag acaagacact tanattcacn gaggttgtca atgagacgct 360  
tgatcctaag agagtcaagc ccgnaaaccg atagnatgat tgatctcgtg aatggggatc 420  
n 421

<210> 1752

<211> 164

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E2-E6

<400> 1752

tttttctaaa cctannnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnaaa gtaatctcaa 120  
aaactgaatt ttagctgggt nnnnnnnnnn nnnnnnnnnn nngg 164

<210> 1753

<211> 416

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-081-Q1-E2-E7

<400> 1753

ctctccccct ctcttgaact ttccgatttt gtatcaaaca cgaacctaact actgcttcct 60  
tgactggtaa tgtaagtatt tgggttgta actccatgga aaaatcaggc ccggtgcaga 120  
aagccgttgt tctccagcca ttgtcaagt tggtagaggct tgtagcgagg gctttctatg 180  
atgattatac tacgaaaagc gataatcagc agaaatctgc tagaagtgc aacagaggga 240  
ttgccgctgt ggtgctagac gcgctggcaa ggcggcaatg ggtagagaa gaagacttgg 300



caaaagattt gcagttgcac gccaaagcaac ttcgaaaaat aataagactc tttgaagaag 360  
 aaaagttgat tatgcgtgac caccggaaag agactgcaaa ggggtgcaaaa gatgta 416

<210> 1754  
 <211> 382  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-081-Q1-E2-E9  
 <400> 1754

cnagtgaatc atccgccgga gaaggtggga gttcatcaat gacgacggtg attaaagaag 60  
 aagctgcccg agttgacgag ctttttggttg ttttaggtta caaagttcga tcatccgaca 120  
 tggctgacgt ggcacacaag cttgaacagt tagagatggt tcttggtgat ggaatctcga 180  
 atctttctga tgaaactggt cattacaatc cttctgatct ctctggttgg gtcgaaagca 240  
 tgctctcgga tcttgacccg acccggtatc angaaaancc tgactcanag tacgatctta 300  
 gagctattcc tggctctgca gtgtatccac ntgacgagca cgtgactcnt cggancaaga 360  
 ngaatagaat tgaatcngag tt 382

<210> 1755  
 <211> 396  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-081-Q1-E2-F10  
 <400> 1755

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 gtcaggaaaag gagaggtcaa cgaacttttag agctgatccg acaagaaaag gaaactgatg 120  
 agcagatgca agaagcagcc attcagaagt caatgagctt tgaaaactca gtcatagggga 180  
 aatacagtat atggaggaga gactatgaga gcccaaatgc tgatgctatc ttgaagctta 240  
 tgagagacca gatcataatg gcaaaagcat atgcaaatat tgccaaatca aaaaatgtaa 300  
 ccaatctgta cgTTTTcttg atgcagcagt gtggagaaaa taaacgtgtt atangtaaag 360  
 caacctctga tgctgacctt ccttccagcn ctctctg 396

<210> 1756  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-081-Q1-E2-F5

<400> 1756

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nnnnnnnnnn nnnnnnnnnn nnnnngaaaa tctagaagaa gagaaagcta caaaaatctc 120
aacatcgagg taagagtttt ggctacagag caaccatgct aacttgcgcc ttctcccaaa 180
atcttatcca ctaatctcgg taaggaaagt gatgttggca aaatggtgaa gaaaggaagt 240
tggttttctg ctatcaaaag gggttttact ccacattecn nnnnnnnnnn nnnnnnnnnn 300
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nttttgggaa gctaaggcat 360
ggcgaagacc aattcatttc tteccatctt cagagagcct agtagtatcg aaaagatct 419
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<210> 1757  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-081-Q1-E2-F6

<400> 1757

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cttaaccgca ttcttcaact cacaggattc agtgaccag tctatgctga agcacatgtg 120
acggtacacc attatgatat tgctcttgaa gttacagtaa tcaaccgaac caaggaaacc 180
cttcagaact tgtgcttggg gttagcaacc atgggtgatc tcaaacttgt tgagcgtcct 240
cagaactaca gtctggcacc tgaaagaagc atgcagatta aagcaaacad caagggtgtg 300
tccacagaga cgggagtcac attcgggaac atcgtctatg agacatcaaa tgtaatggag 360
cgaaacgtcg ttgttcttaa tgacatacac attgatatca tgggactata tctccc 416
```

<210> 1758  
 <211> 402  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E2-F7

<400> 1758

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atttcaaaaa gcgggantta aagtcccagt gggatgtcng atgttcgttg gntaaaattg 120  
tcnagcaccg tgtaaattgt cttttggcta cagtggcgga tgattttgtt atccgtttat 180  
atgatgttgt gacactaaag atggttcgtg aatttagang tcatacagac cgtataacgg 240  
atttgtnent nangtgagga tggcaaatgg gtcantcan ctagcatgga nggaagtctt 300  
agaatatggg atgtcanatt ggctaagcan antgatggtg tgcattgtcga tgtgccaata 360  
acagcattgt cgttatcanc aantatggac gttttggcac ct 402

<210> 1759

<211> 408

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-081-Q1-E2-F8

<400> 1759

agattgtgag agatatgatc cctcgtatta accgcactag cagatcggat attattctcc 60  
ggcaccgcca catcatcaaa aacctcaaac ttcaactccg gcaacatctc ctcccttctc 120  
atctcacaaa tgttatgcaa cacacaacaa gctccaagca cgtacggcag atcctgaagc 180  
ttcacctccg tccgtttctg caaacaagcc caccgtcctt tgagcctctc aaacgcagcc 240  
gtcgcaatcc cctgaatctc tccgatactc tcgttaaacy cgtgctgctt ccacgtcaga 300  
ttctgtctcg tgtacggtag aagaagataa tcagtcaacy gaaaccaga gtttccaact 360  
atccagctgt cagctaacat cccacgcgcc gctctttgcc gtgaaagc 408

<210> 1760

<211> 460

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E2-G11

<400> 1760

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ttcatcacca ttcccaatth tccgtttcttg tttctgattg aatcnagata ttgattaagc 120  
tatggatgtc aatcggaag ctcacccgga ttgtcgatat tcttcaaata ctttccatga 180  
atgtgcttca gattgttttag agaagatctc tcaaggcngt ggaaataaga attcaaagaa 240  
gcaaggtact ttctctgttc tcacactatg tttgatccgt tacnctatga gtatgcttct 300  
gttgtgatgg atattttctgt cnttgctcnt ctttangtan tgcttcaagg ataattcttg 360  
naggggttgt ctgttatgac ngntatagtt tgatcaaggc ggttttanct ttcgatggat 420  
ctgcaaagtt gtttcctgtc cttttcccat tgggaatttg 460

<210> 1761

<211> 407

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E2-G9

<400> 1761

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gggttttcca gttttcgatt cctcgaatat gagtttacca agctccgatg gatttggttc 120  
gattccggcc acgggacgga ccagtacggt gtcgttttct gaggatccga cgacgaagat 180  
tcggaagccg tacacaatca agaagtcgag agagaattgg acagatcaag agcacgataa 240  
atttctagaa gctcttcaact tattcgatag ggattggaag aaaatagaag cttttgttgg 300  
atcaaaaaca gtagttcaag atacgaagcc acgctcaaga aatactttct caaagttcag 360  
aagaatggtg ctaacgaaca tcttccaact nctcgaacta aaaggaa 407

<210> 1762

<211> 462

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E2-H2

<400> 1762

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atgagtttct tgacgagtta aagaacgggtc ttaagtctat ccttgaaggg aatgtagcgc 120  
anagtgttga tgagttcatg ttcttgcaga aggttgttca gagtagaact gatttgagct 180  
ctgtaacact tgttagagct catcgggtgc agcttgagat actttagcgc ataaataccg 240  
ggattcaggc gtttttgcac ccgaatatta ctctgtctca gccgtctctt atcgagattt 300  
ttgtatacaa gagatgtaca aacatagctt gccaaaatca actacctgct gatgattgct 360  
actgtgatat atgtactaat aggaaagggt tttgtaacct ttgtatgtgt acgatctgta 420  
acaagtttga tttttcgggt aatactgccg ctggatcnga tg 462

<210> 1763  
<211> 475  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-081-Q1-E2-H3  
  
<400> 1763

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gggccattgc ggagatgata aacaaaccgg agatcctcca caaagctatg gaagagatcg 180  
atagagtcgt cggaaaagaa agattcgtcc aagaatccga tatac caaaa cttaactatg 240  
ttaaagctat tatccgagaa gctttccgtc ttcacccgt cgccgccttc aacctccac 300  
acgtggcact ctctgatacg accgtcgcag gttaccatat tcctaaagga agtcaagttt 360  
tacttagccg ttacggtctt ggtcgtaacc ccaaggtttg gtctgatcca cttagcttca 420  
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<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-081-Q1-E2-H6  
  
<400> 1764

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attacaagat actgtaggtt cttgttgttt ggatttgaac gaanatggaa tggagtgggtg 180  
gattgagaat aatccgaaga agcctcgaaa agggttcgtt gcacaggaga ttggagacac 240  
gtttataact gtgccaaagg attttgtttg tccaatctct cttgatttga tgacagatcc 300  
tgtgattatt tccactgggc agacttatga tcggaactct atagctaggt ggattgaaca 360  
agggcattgg tacttgtccg aaaacaggac aaatgctaata ggattccgag gattgttc 418

<210> 1765  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 1765

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agacctggag tttgggaata cgtaagagtt aacctccatg atcttgtcgt tgaggagctt 180  
caagcttctg aatatcttca attcaaggaa gagctcgtcg atggaattaa gaatggaaac 240  
ttcactcttg aacttgactt tgaaccattc aacgcggcat tccctcgtcc tacgctcaac 300  
aagtacattg gagatggcgt tgagttcctc aaccggccat ctctcgggct aagctcttcn 360  
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g 421

<210> 1766  
<211> 472  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-081-Q1-E2-E3  
<400> 1766

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 tggcgttgct gaagtctttc atcnatgttg gctcagactc gcacttcctt atccagaatc 180  
 tcccttatgg tgtcttcaaa ccggaatcga actcaactcc tcgtcctgcc gtcgctatcg 240  
 gcgatttggt tctggacctc tccgctatct ctgaagctgg gcttttcgat ggtctgatcc 300  
 ttaaggacgc anattgcttt cttcagccta atttgaataa gttcttggcc atgggacggc 360  
 ctgcgtggaa ngaagcgcgt tctacgtgc aaanaatctt gtcactaat gaacctatct 420  
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<210> 1769  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-081-Q1-E2-C12  
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 cgttctcgtt atttcttatt ctcagatctt ggattcacga ccatctcgat cgttgaccgt 180  
 cgaatttggg ttccggtaaa aatccaatct tttttttccg gtgagaagct cgagagagta 240  
 tataatttaa taaaggttac gtacgatttt ggttgagtgt tntgatgatg ttgacccaat 300  
 ttgttggggg gtgaagtata cntatggaac tgattgtcac aatacaagaa gancaacatc 360  
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 aagggaaaaa aaatttggcc n 441

<210> 1770  
 <211> 480  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-081-Q1-E2-C2  
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 tacctctctc tcccttctct cactccgacc aatcaccaaa agacccttac ctctctctcc 240  
 gtcgtctcgc tgaatcctca atcgctagag ctcataaact caaacacggc acctcaataa 300  
 aacccgaaga anatgctctc tctccacca ccaccgcac cgccaccgtc gtgaaatctc 360  
 ctctctctgc taaaagctac ggcggatact cagtctctct cagcttcggc acaccgtcgc 420  
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<210> 1771  
 <211> 474  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-081-Q1-E2-C4  
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 caagaatgga taantgtact ggagaaaatc ccatggcttc tcagttgaac attctccgat 180  
 gccggttctt gaggaacatc aatgagccca ctaacctctc tttctcntca ncttgcctt 240  
 ttcccatccc tgcaagagct gggaaaggac ctatatttga agatgggtccc aattttgata 300  
 cggcgtttan gcttttccat ggccaanatg gagttgtccc tcgctctgac accgctcnaa 360  
 ctgaagccca naagcctgtg cctgtattcc atccacttgc tgctaatacg gncactatta 420  
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<210> 1772  
 <211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-081-Q1-E2-C5  
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aagaacccaaa gctccaccac tcacaagtca ccaatcttgt tgcttaaaga gacaacatgg 120  
 ggaacaagaa atctgcagac agataaggcg tgaaagattc tgacgagtta aaacgtgtga 180  
 agtgggtttt tgggtacgta tcctctgcac cagcttttta gctgtatata gtggactact 240  
 ttttaagtatt atatatgcta ctgcaaattt caaaaagtta aagaagaaaa gaggtcactt 300  
 tcttcttctc tctgtgtgga atgaaaagcc aaagtcgtca tggtcattga tggacaatga 360  
 ttatcttttt tggctgagtg tggatggtga aatcaaaaag gcaaa 405

<210> 1773  
 <211> 393  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-081-Q1-E2-C6

<400> 1773

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 agcttctatg aagacgcaca aaccaaacca gccaatctct tctcaaccat tctgtagttc 180  
 ttcaccttct tttcatcctc aagctgatcc cactcacccg tttgcttcat cgacagctaa 240  
 acgaggacct gttcctattg tcaagggcaa aaaaacacaa accagttttt cctggctcgt 300  
 cttccacaaa acatgcccc aaccatcctt cagatcaacc tccacgagga caagtcatga 360  
 acagattacc atctgttcct gccagttcaa gtc 393

<210> 1774  
 <211> 386  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-081-Q1-E2-D10

<400> 1774

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 agctggacct cggagtaaaa atgctttgaa gaaggaacag aaaatgaagc agaaagagga 180  
 agagaagaga cgaaaggacg aagagaaagc tgaaaaggct aaacaagcac ctaaagcaag 240

ctcccagaag gcagtggcag cagatgatga agagatggat gcancgcaat actatgagaa 300  
cagattgaaa tatcttgccg ctgagaangc taaaggggag aatccatata ctcacaagtt 360  
cgctgtgtca atgtcgantc cctaaa 386

<210> 1775  
<211> 471  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-081-Q1-E2-D3  
<400> 1775

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gattcaaaga cttttcttcc taagcttttt aacagatccg gtgaaaattt caaaatccga 180  
agaattctct aaagctaggg tttcttaatt cacgagacgg aggtgatata attccccccc 240  
gtcgtagcta tgatgatttc gagaggtttg tttggttggt ctccgccgca tatacaaccg 300  
ttaactcttg tttctgaagt ttccgagcct cctgagtctc catctcctta ccttgatcct 360  
ggtgctgagc acggtggtac aggaacagcg gcgcaagcgg atgatgagga ggaaatggag 420  
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<210> 1776  
<211> 347  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-081-Q1-E2-D5  
<400> 1776

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gagatcgaac caaagctcct gatcaatgag aagtactctt tgtttttgta cgttgctggt 180  
tttaatcatg gcacttaaata taaaaccaac tgttttgtta gtgataatgg attggcatta 240  
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347

<210> 1777  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: LIB22-081-Q1-E2-D7  
  
<400> 1777

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gtctcttcat tctccactcc agcgagtttt ctccaatctt tgcgtcgggc accggaaaat 180  
tcgaagctcg gtttctgccg ccggagatta tcgtaccgga aatgaagat ctgattcctc 240  
aagatattga agtagagaag tgtgatcttt tcgccggaaa atggatccca gattcagtag 300  
gaccaatcta cacaacaaa tcatgcggat cactcattga cggtcaccaa aattgtatca 360  
ccaatggccg gcttgactta gattttctct actggaaatg ggaaactcat gactg 415

<210> 1778  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-081-Q1-E2-D8  
  
<400> 1778

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aagaatcttc cacatagaca gcccttgctc ccccttcaaa tcatcatccc cactctcatg 180  
ggaagcgcgt gtgtccaga cgctgggtca agaccaggcc cgtctccagt acctgagcag 240  
cctcgtcgcc gggagatctg tagtcccat tgctcaggc cgtcaaagt tgcaaagcac 300  
tacatacatt gtcaaggctt tgatcggtag tccggctcaa gccgctgctc ctagccatgg 360  
acacgaagca gtgacgtggc ttggattcct tgctccggct gcgtttggct gtcct 415

<210> 1779

<211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-081-Q1-E2-D9

<400> 1779

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tgggtgcgata ctgcgtctca cgaattcaga atcggatgct tcgaagaaga gaagaatggg 180
ggtgcttccg ctcgagggtg gtactcgcgt gatgtgtcaa tggagagacg gaaaatacca 240
tccggtgaag gttatcgagc gccgaaagaa ttataatggg ggtcacaatg attacgagta 300
ctacgttcat tacacagagt ttaatagaag attggatgaa tggattaagc ttgaacagct 360
tgaccttgat tcagtagagt gtgctttaga ttaaaanctt taagac 406
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<210> 1780  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-081-Q1-E2-E1

<400> 1780

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ctaagagaaa gacaaactgt ctctggctta agggaanggt tccataacgg gagggaaaat 180
attgtccatg aaaatactag caaactgat aatgataata gcaatacttc cacaaatgct 240
cttgcaattg cnatcactgc tgggaattct cagcgtgtaa ccgatgagag ttcancttct 300
tccagacaag ggaatgatag tcccattttg cctganaact cagaaagcaa cctagcaaat 360
gcggatagag actgggaaga ggataccaat caaagaaaga tctggcagga aaatgtccca 420
ngtagatgag aaggcaaatt ttggagcan 449
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<210> 1781  
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 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E2-B6

<400> 1781

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ccttcattct tttctccttc aaattctggt ttttttcaca gatcgttttc tcagattttg 180

actctttttg gtggttggtt tgttcttctc cttcgtgaag tggaagaaga atataacaaa 240

actgggtttt ttatatctgg aattctgaag aaattcttca cggatttgat ctgttttaaac 300

tataaaagtc ttgattttta taaatcagct aaaaataaga cacggtttag ggtttatggt 360

ttgactagaa acaacaatac tgaaatgggt tgtgagggtt caaagttang tgc 413

<210> 1782

<211> 391

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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tcgaacttca caatttcttg gtcgatccaa acttcgatca gttcataaac ctcataagag 120

gagatcatca aaccattgac gaaaaccag ttcttgattt cgatcttggt ccattacaaa 180

acagcccctg tttcatagac gagaaccagt tcatcccaac acctgtcgat gacctcttcg 240

acgaattgcc tgacttagac tccaacgttg ctgaatcatt ccgtagcttc gacggtgata 300

gtgtagagc cgggtggtgaa naagatgaag aagattacaa cgacgggtgat gantcttcaa 360

ccactactac gaataatgat ggggacccgt t 391

<210> 1783

<211> 437

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-080-Q1-E2-B11

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agaagaagct tcagaaccct actccacgtt taaacgagag gattctctca tctttgtcta 180

agagatcggg tgctgcacat ccatggcatg atcttgaaat cggacctgga gctccagtga 240

ttttcaatgt ggttattgag atctcaaagg ggagcaaagt caaatatgaa cttgacaaaa 300

aaacaggtct catcaagggt gataggattc tttattcttc ggttgtgttc ctcacaaacta 360

cggggtttgt cccacgcaca catgtgaaga caatgaccct attngatgtt ttanttacca 420

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<210> 1784

<211> 376

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-080-Q1-E2-B3

<400> 1784

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ctcaaaccce taaattaggg ttcagttttt aagcctccgt cttcttcttc ttccgtcgtc 180

gtagtcgaaa ggtgggtttta gctatatgga tatcttctac tgcaaatact cttcaaaacg 240

gatgctttga agccttgata ctaatttcat gcgttctata tatgtgcac gtaaggaagt 300

aatgggagag aatcgtcaga ttaaattacg ttcttgggaa taaaatggca aactaaaaga 360

tgcattncaa atggca 376

<210> 1785

<211> 470

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-080-Q1-E2-B4

<400> 1785

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 cgacttctgg atctcctccg aggcagctac atcatcatca acatcagatg aagaagcttc 180  
 ctccgttgta tcctaggagt caagggctct ttggtaattt gacttcgtct cagtcgtcgt 240  
 tgggtttttg tgccctggaga tcgttttcgg tggctgattt tccgaggtgt tttccggcga 300  
 cggcgagtgg gattgggttt aatgactcgt aggaaatgat gataacaatt gttttgttaa 360  
 atttttatat tttgaaagtt agtaacaacc acatccggga gaatgtatgt tgtanaaaaa 420  
 nannttcaaa acctttggaa tgggttaanc aaaatctttt ttttcacaaa 470

<210> 1786  
 <211> 373  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-B5  
 <400> 1786

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 gctttagaat gcttagaaat tcggttttgt ctttatcttg gtatggatga ctatgaagcg 180  
 gctcttcgtg atattcaggc tgctcttacg ctgtgtcctg attatagaat gttcgatggg 240  
 aaagtagctg ggaggcagct ccagacgctt gtgtatgagc atgtcgagaa ttggacaacc 300  
 gcagattgtt ggatgcagct atatgagaaa tgggtctaatt ttgatgatat angttcccoct 360  
 tccnggtaac caa 373

<210> 1787  
 <211> 431  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-B9  
 <400> 1787

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gtgcagttac ctactgttg atttcttcag gaaacttccc caggatgttg agaagggtgg 180  
taacccacac cactccattt tcgaccgcta caacgattcc tatctcagac gaatcggatc 240  
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catcgtatac tgccaagtcc gagaagcgaa gcgcagctct ctcgaccatt tctttgcgga 360  
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<210> 1788  
<211> 406  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-080-Q1-E2-C2  
<400> 1788

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tttatgtgaa gctcttcaat tgaagaaaga agaagaaaag acaatcgtca aatgcttgac 180  
tttggtttca gttcttcttc acgacagctc aaggaagatc ggctctttga tgggatggga 240  
caccaagaaa tcaccatggg tttatgatgc tatcaattac tagtagtacg tggtatcttc 300  
tgaatatata tcatggcatc ctctggactg ggaaatggag tangcacttc gagatntgcc 360  
aaagggttaa agaaccctc canntccggt caattgggtn gaccaa 406

<210> 1789  
<211> 459  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-080-Q1-E2-C3  
<400> 1789

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gcaggctctat cagtatgtga tgtggttcat caagattccg agcagaaact agagaatact 120

gctcacgagg caaaaaaacac aatggctagc actgatttcc tggcacagct ttcaacttct 180  
cttttcgaag aagacatgga accgttcatg gaagtagatg gcaaagaagt tgacaagtca 240  
tattatgatg gtcttagctc actgttggtg aactctacaa atgatacaaa ccgcgaggct 300  
tttcctaacc ccaccgagca agaaccttcc attgcaccaa ctcatccagg agaggcaacc 360  
ctggatgata atgtgatgct tgagctagat ggtacaatcg ctttanattc tcaacctgaa 420  
aatgggtgggg ggggttancc ggccggttaa ttaancgaa 459

<210> 1790  
<211> 465  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-080-Q1-E2-D1  
<400> 1790

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tttttgctcc ttcaagatga tctcatggca cgacctctac acggtcctca ccgccgtgat 180  
tctctctac gtggccatga tctctgctta cggctctgtc cggtggtgga aaatcttctc 240  
acccgaccaa tgctccgaa tcaaccgttt tgctgccatc ttccgcgtcc ctctctctc 300  
ttttcacttc atctccacca acaatcttta cgcaatgaat ctccggttca tcgccgccga 360  
cactctccaa aaaatcatca tgttgctact tttagtccta agggctaatt tcantcgctc 420  
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<210> 1791  
<211> 443  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 1791

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ctgcttccaa tggcggttagc tcnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 180  
 nnnnnnnnnnn nnnnnnnnnnn nnnnnnnntaat ttcagaacaa ctcatctgaa tttcggttct 240  
 caaaggagga tttacacaat caatcctctc cttagatcct ttaaatagcct tcaatcatct 300  
 tcaagagacg taaatgcgtc acctnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 360  
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<210> 1792  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-D3  
 <400> 1792

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 aagacgagga agaaagagaa tgatgttggt agcaaaggaa gaatcggaag aggaagagga 180  
 agaggagagg tttcgaagcg atctattgaa atagacattt ctaatcccga gaaggatatt 240  
 aagcctgacg gaagcagaaa gtgtttgggt tcgacgtgtc atcattgtaa gatcttgacg 300  
 agtgagagtg atcttatctt ccgttcaaag tgtaacaaag aaatgttaat gcctttgacc 360  
 ggcattcagn aattcgtatc nagaaggaac cccatgagga atttag 406

<210> 1793  
 <211> 377  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-D5  
 <400> 1793

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 cttattacaa ttgctctttc cctaacgaca agtgcactct aagtgttcca ttatttgga 180

ctaagtctgc tgtactaacc tcaccaggtc caaagctgaa caattctaag aatgagttct 240  
 gcgcaaaact ctcatatgaa ccaaggtgga ttgcatacat agtttgcatg ggtgtagtga 300  
 cagcactctt gttaattgtc tcgagtctct tcaataaacg acaaccaatc actgaagatg 360  
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<210> 1794  
 <211> 400  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-D7  
 <400> 1794

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 cttcgtttga ttttctgtt gtttggtgtt caaggatcga gatttcgtgg agctctctat 180  
 tcgcagcttg gagattggac ttgtttgaat tggctctttt gtgatggagg atactcggtc 240  
 agttgcttca ctcatggact ctacatcacc caagattcag cagcttcaga aggcgtttgc 300  
 tgaacttgaa agtcagcgtg ctgtaacact taatctgaag tggaaggaac ttganganca 360  
 ntttcaaggg gctnaaaagn cttttgaaaa aaaggttcat 400

<210> 1795  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-D9  
 <400> 1795

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 agagcgcaaa ttgtttttct atcaatcacc cttccatca acagctatac aactatgtga 180  
 agcaccatta tgaaacccaa ggacaagcag aacctgcaaa gcaaggatca ttccacgtgg 240  
 gttttcctga gcctgaagct gaacgttgtg atagccaaaa ccatagaatc ggagctgcac 300

aagtttgaga accgcaacgg tctggccgtg tccattgatg acagaaaatc cagtcgatgaa 360  
 aactggcaa atgggtgacct ctgaatgcct ctgaaggaaa tcccttangt 410

<210> 1796  
 <211> 398  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-B1  
 <400> 1796

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 cccatthttct agtgthttcat tttgatcctt cttccttctt ctggagattt ctcaaattctc 120  
 ttcaactatt ttgatttgcc gccatgtatc gacgcgccac ttccggcgtg cgttctgcct 180  
 ccgcaaggct ttcttcttcc ctctccagga tcgcctctag cgagacagct tcggtttcgg 240  
 ctccatctgc gtcgtcgtt cgcaatcaga cgaaccgatc taagagtttc tctcggctc 300  
 tccgctcctt tcgagtttgc tctgcttcca cgcggtggag ccatggtggg aagctgggga 360  
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<210> 1797  
 <211> 394  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-E1  
 <400> 1797

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 ttttttttgt tttccttctc cggcgaaatcc ccggggagat tggtaatcgg taatcacggc 180  
 tatttacggg ataaagccac ggcctttgag cttcatgtcc aacgaaaggg ttgtttaatc 240  
 ataactaatc ctttgctca cggaggacgt ggagctctgc cgtctgaagg cggcagtcctc 300  
 tccgatctcc tcttcctcgc cggaggcggg tccacaaata gccactaacc ctaaaccctt 360  
 ttccaaatan gggttttaag tcctaaaagt ccng 394

<210> 1798  
 <211> 340  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E1-B9

<400> 1798

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aaacttcccc aggatgttga gaagggtggt aacccccacac actccatttt cgaccgctac 180
aacgattcct atctcagacg aatcggatcc aatgttttgt cttacgtgaa catggtctgt 240
gctggcctgc ggaattcaat cccaagtcn atcgataact gccaaagtcg agaagcgaag 300
ccgcantctc ctgcaccatt tctttgcnga gctcggtacc 340
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<210> 1799  
 <211> 368  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E1-C2

<400> 1799

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cttttttctc aatccgatca ttcaccgaga aatattctat tttatatatt tatgtgaagc 120
tcttcaattg aagaaagaag aagaaaagac aatcgtcaaa tgcttgactt tggtttcagt 180
tcttcttcac gacagctcaa ggaagatcgg ctctttgatg ggatgggaca ccaagaaatc 240
accatggggt tatgatgcta tcaattacta agtagtacgt gttatcttct gaatatatat 300
catggcatcc tctggactgg gaaatggagt aggcacttcc gaagatctgc caaanggtta 360
aaagagct 368
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<210> 1800  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E1-D3

<400> 1800

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 taagacgagg aagaaagaga atgatgttgt gagcaaagga agaatcggaa gaggaagagg 180  
 aagaggagag gtttcgaagc gatctattga aatagacatt tctaataccg agaaggatat 240  
 taagcctgac ggaaagcaga aagtgtttgg gttcgacgtg tcatcattgt aagatcttga 300  
 cgagtgaana gtgatcttat cttctgttca aagtgtaca angaagtgtt attgctttga 360  
 ctgcatcaag agatcgtatt caggaaagaa cacatgagga agttangagc tg 412

<210> 1801  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E1-E1

<400> 1801

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 ttttttttgt tttccttctc cggcgaatcc cgggggagat tggtaatcgg taatcacggc 180  
 tatttacggg ataaagccac ggcctttgag cttcatgtcc aacgaaaggg ttgtttaatc 240  
 ataactaatc ctttcctca cggaggacgt ggagctctgc cgtctgaagg cggcagtcctc 300  
 tccgatctcc tcttcctccg cggggangcg gttccacaaa tagccactaa cccctaacc 360  
 ttttttcnaa ttanggtttt taagttcctt agaagtcctc gt 402

<210> 1802  
 <211> 371  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E1-F10

<400> 1802

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tgaaaccgga gcattcttct tctgtatcaa tggaccggaa atcatgtcaa aactagctgg 120

tgagagtgag agcaacctca ngaaagcatt tgaggaggct ganaagaatg ccccgctctat 180

catattcatt gatgagattg actctattgc accaannaga gagaagacga atggtgaggt 240

tgatgaggag gattgtctct cagctcctta cgcttatgga tggactanaa tcacgtgccc 300

atgttattgt tatgggagca acatatcgtc ccaacagtat tgatccggct ttgagaaggt 360

ttgggaanga t 371

<210> 1803

<211> 382

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-080-Q1-E1-F9

<400> 1803

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tcttacggcg gcggaagtca tggcgaaacat agaatcagaa gcagtcgatt tcgagccana 120

ggaggatgac cttatggacn aagaangtac agctattgac ggagctgatg tttctccacg 180

cgcgggacat ccgaggctta agtcggctat tgccgggagc taatggcgaa tcagcaaaca 240

agaccaaagg ccgtgggttt cccgaggaga aagattccga tctcagcgtc gtctttcctc 300

acgcnatctc gaatcacntg gttcanatgg ccgtcctggc cccgcaagag attncntttg 360

aaaggattgg attatcctgg gg 382

<210> 1804

<211> 376

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-080-Q1-E1-G10

<400> 1804

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gttgcatctc aaagaattac catgttcaag aatattagtg gccaccaggg attttttctt 120  
tctgggtcaa ggccgggggtg gtgtatgttg ttcagagagc gactacgatt tcattcacag 180  
ctgtgcgacg gatcaattgc ggcctttant gttcttcaca atgtgaaatt gcaatcacgg 240  
ggttcatata tgtcacagca cangggagtt ttgaagattt gccattacc ttcagcatca 300  
atctatgata attanttggc caagtgcaga agattccctc taaaggccac acctcaccaa 360  
gttacgtacc aacgcg 376

<210> 1805  
<211> 371  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-080-Q1-E1-H10

<400> 1805  
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ttttttgctt ctcacctgaa tccaatcaat ctcgcggag tgaattcacc ttctccgggt 180  
tgactcgtcg gacttagtcc gacctttcaa ttcgtagatt ctgtttacaa ttcactgac 240  
gtttgattag aaatgggtta cttgttcttc taagtctctc tttagctgaa agtttggtgc 300  
tttacgannc ttcgatttac ccttacttgt tcaagttcgt catcaaattc gtaagtatgg 360  
gcataagnag c 371

<210> 1806  
<211> 333  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-080-Q1-E1-H11

<400> 1806  
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tggttcangt cctggtcttc taccaantgc cagttctgtt cctggttctt tagcgggtgg 120  
tggttcaggt tccttgcta ccaactggtc agccacnnnn nnnnnnnnnn nnnnnnnnnn 180

nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 240  
 nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 300  
 nnnnnnnnnnn nnnnnnnnnnn nnccangtgc tgg 333

<210> 1807  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E1-H4  
  
 <400> 1807

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 tttcaactct caatcctgct aacaatcagc caattgctca agttgtggaa agcttctcta 180  
 gaggattacg agcaagggtt gaaagcttgc gaggaagcag ctaaaatatg gatgcaggtt 240  
 acggctccta agagaggtga tatcgtcaag acagattggg gatgcactaa gatccaaact 300  
 tgactatctt ggtcgtcttc tttctcttga aatgggaaag atncttgctg aaaggtattg 360  
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 a 421

<210> 1808  
 <211> 364  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-A1  
  
 <400> 1808

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 aaaatggcga cagattctca accaaaccaa aagctaacgc ttccgttaaa aacaagaatc 120  
 gctctcaccg ttatctccac catgaccgat aacgtcaac gtcctgacgg aactatcaac 180  
 cgccgtttcc tccgcctctt cgatttccgt gtcctccca atcctaaacc cgtcaacatc 240  
 gtctccacct ccgatttcgt cgtggatcaa tcccgtgatc tctggttccg attgtacact 300

ccacatgtct ccggcgataa aatccccgtc gttgttttct tccaaggggg ggggttcnct 360  
tccc 364

<210> 1809  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-080-Q1-E2-A2  
  
<400> 1809

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acccttgaaa ccgtgtagcc atcttgctta atgattagag tcttaaagct gtgctctttc 120  
ttcatcgatt tgagcaagtg atcttggaag gctcttgagt tctgaattcc ttgtaagcaa 180  
tcatggcagg gaaaagagaa aactttgtga ggggtggatga tttggactct aggttaccat 240  
catcatctgt agccttccaa cagaactacg cctccaattt cagtggacaa cttcatccta 300  
ttcatgcaag caatgaaact tctagatcct tcaagaaagg tatccagaag gggtccaaag 360  
ggcttaagtc gatcggacgt tcaattgggt tcngtgttta nccaacaatg ttcccaaa 418

<210> 1810  
<211> 409  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-080-Q1-E2-A4  
  
<400> 1810

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atgcaagaga gccgcaacaa taggatcaat gaactcgtg atgatcctcg tgcattggaac 120  
gggatgcaac cagtttctctg atgaattcgc tttacacttg tagaaatcag aattctgact 180  
tttgggagag ccataattgt ttaggttctt ccaaggcaat aaaaccacag ctgagttcag 240  
aatcagaaaag cagttacagt ggatgttcat tggcaatgtc tgatgattta gtaagtaaaa 300  
aaagtgtaat attgtagcat tcaccaagtc agctatgcng ggtgtgtnac ncaaccgggg 360  
aactnannnc tcccccaang gggaccaggt tttctaagtt ccaaaaanaa 409

<210> 1811  
 <211> 387  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-A5

<400> 1811

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 gcatggcaac aannnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnngg acattctgaa tcctctcaca atttctccgg 240  
 tggctctagg gaaccgagtg ttgcagctga ggagggacat agccgtggat cttccaaaga 300  
 gatgacacaa aatgggagca gggaaggana gtttttcccc aagctaatagc agataangcg 360  
 tgancatttt ccgatatgat tgggccn 387

<210> 1812  
 <211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-A7

<400> 1812

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 cttctagcaa gctactgaga agagtcttga gagatcagat taagcaagaa ctactatcct 120  
 tacgaagtcg aatataaagc cttgatctta agtttaacta gaataaaata agatctgctg 180  
 agtagtagtt gatctacaca tgattgggta ctgctcggnn nnnnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
 nnnnnnnnnn nnnnnnnnnn nnnnnnttgg tgtatatatt tcatatcaag attaaaatcc 360  
 taaatttncc ncaaaaaaan nnnaaaaaaa aaggggcggc cgctc 405

<210> 1813  
 <211> 401  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-080-Q1-E1-B8

<400> 1813

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aagcctttga agaaaggcaa gagagagcct gaagatgata ttgacaccaa agtgagtctt 180

aagaagcaga agaaagacgt gattgctgct gtccagaagg aaaaagctgt gaagaagggt 240

cctaanaagg ttgagagctc tgatgattca ngattctgaa tctgaggaag aggagaaggc 300

taagaaagtc ccatccaaga aggctgcttc aagcagtgat tgagtcatcc tgatgantcn 360

tcttcanang ntgaannctg nacgcaaagg naagggccgt t 401

<210> 1814

<211> 414

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-080-Q1-E2-A9

<400> 1814

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ttctcgctct ctcttcaaaa ccgcaaatca agggaacgag agacgagaga gagagatgag 180

taaacggaat ccgaagattc tgaagatfff tctgtatatg ttactttctca actctctctt 240

tctcatcatc tacttcgttt ttactcatc gtcgttttca ccggagcagt cacagcctcc 300

tcatatatac cacgtttcag tgaataacca atcggcgatt cagaaaccgt gggccgatct 360

tacctttctta cctcccaagg gacgccgccg caaagggaat ccaacaactg ggtc 414

<210> 1815

<211> 418

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-079-Q1-E1-G4

<400> 1815

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ctcaatcttc gtctctttcg aaagatctaa ccacaacaac tccttaagat ggataagtat 120

caacgagtgg tgaagccgaa agcggatagc cggattgatg cgaatgagat tcgtatcact 180

agtcaaggca gggcacgaaa ctacatcacc tatgcgatga ctcttcttca ggataaaggg 240

tcaactgaag ttgtattcaa ggcaatggga agagctatca acaagactgt gaccattgta 300

gagctgatta agagaaggat cctgatctt catcagaaca catctattgg attcacaaga 360

catcacagac acatgggaan caacagagga aaggcntcct aactttgggg actacaan 418

<210> 1816

<211> 449

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-079-Q1-E1-G8

<400> 1816

cggggtcgac ccacgcgtcc natttaatcc tcaaactggg ctacaagacc aactgctcc 60

atttaatcat caaactggct acaagacctc actgctccat ttaatcctca aactgggcta 120

caagacctca ctgctccatt taatcctcaa actgggctac atgacctcac ttctccattt 180

aatcctcaaa ctgggctaca agacctcact gctccattaa atcctcaaac tgggaatcgc 240

aatgaccgga gaagctcctc ctttctgtat aatcaaggcc attttgactt ctctgggtgg 300

aatgatgatg atccttatgg cttttctgct tccatgagac atagaccaca agtgtanang 360

aaagaagaaa ganaagagaa gcaggattta caaatccaac agatgcaa at cagaccggaa 420

tataaaggag gagcaangca ctttttgtt 449

<210> 1817

<211> 485

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-079-Q1-E1-H1

<400> 1817

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gctaaggata aagaaaataa atagtaaag gaagggtttc ttcgctttct ttagcgaaa 120  
gccatcttat tggcttttagc atcttcattt gtatcttggt acgacccaag tcctcttcag 180  
gacttttgtg ttgccgtcga tgacgctagt ggtgttttcg tgaatggaaa attctgcaaa 240  
gacccaaaat acgtgaaagc tgaagacttt ttacttccg gactaaacat cgccggaaac 300  
acaataaacc gcgttggtc caacgttaca aacgttaacg ttgacaaaat ccctgggact 360  
caacaccctc ggagtgtctc ttgtccgaat tgactttgcc ccgggangtc aaaaccgcc 420  
acacacgcaa ccacgagcca ctgagattcc ccctgggtgt ncaaaggaaa ntcctaaacc 480  
ggttt 485

<210> 1818  
<211> 442  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-079-Q1-E1-H11  
<400> 1818

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aatcaggaaa gccagttaca gtgactcctg aagaaggcat tcttatccac gtttctcagg 120  
catcgcttgg agaagttaa aacaagaang gagagtttgt gcctttacat gtaaagggtg 180  
ggaaccagaa cttggttctg ggaactctat cgactgagaa catccctcag cttttctgtg 240  
atgtgtatt cgacaaggag tttagacttt ctcacacttg gggaaaagga agtgtttact 300  
ttgttgata caaaactccc aacattgagc cacaaggcta ttctnaggaa gaanaggaan 360  
aagaggaaga agttcctgct gggaatgctg ccaaggctgt agctaaacca aaggctaanc 420  
ctgcagaagt gaagccagct gt 442

<210> 1819  
<211> 480  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-079-Q1-E1-H3

<400> 1819

cttctacgct gnnccggtacc ggtcaanaat tcccggggca aatttcccc ggcnacgaca 60

tggacgtatg tgaatgaatc tcgctatcaa accctaattc aaccatcgcc atgaagggtgc 120

tccgagaagc ttcttcatat ccttacagat cctgtatcat cgtcgtatct ctctccgttt 180

ctctcttctg gctccgtccc agcacttacc atccccagca acaaaatctc aatccagaga 240

acgtaactcg tttggagtct gagaatgaaa cgaagactaa ctatataatc cgatttaagc 300

agtataagcc ggcgaaagat catcgaattt acctcgaatc gaagggtccga tccgggtggtt 360

gggggttgat cgagaggatt aaccggcgca cgaagtatcc gactgacttc ggtgttcnat 420

ggattcaaga aagccggaaa naaggcnttg gttgganaaa atnaaaaggc tgaaaatggt 480

<210> 1820

<211> 481

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-079-Q1-E1-H4

<400> 1820

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ttcttcgggtg acttccatgg ctccgcctgt ctctgatgat tccctacagc ctcgagatgt 120

ttgtgttgtg ggagtggcgc gaacgcctat aggggacttc cttggctccc tctcgtcttt 180

gactgctaca agacttgggt ccatagccat ccaagccgca ctttaagagag cacatgttga 240

tccggccctt gtggaagagg tcttcttttg caatgtctta actgccaatc ttgggcaagc 300

accagcaaga caggctgcac ttggtgctgg gattccctat tctgtgatct gcaccactat 360

caacaaagtt tgtgctgcan gaatgaaatc tgtaatgcta ancgtctcaa agtatccaac 420

tccgctttga atgatattgt tgttgccctgg gtggggatgg gagaancaat gtcaaacggt 480

a 481

<210> 1821

<211> 375

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations



<223> Clone ID: LIB22-079-Q1-E1-H5

<400> 1821

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tttttccac tttgcatctg ttttgaggat gccagctacg gattttcaag gatcatttgg 120  
aaggtcgttg ctaagtttac ggcgagacca agttgactca tcaacagtcg tctccggaag 180  
tagtagccac cagcagccaa gcacatgga gggtgagcta gattcgtttc aaagacaagt 240  
cgctgagaaa ttcacgacg tcaacgcttc ttcaaacgac cttctctctc tcgaatggat 300  
cggaagagctt cttgattctt tctctgttg tcaagaagag ttctgagcta tcgtattcaa 360  
ccaccgatnt caaga 375

<210> 1822

<211> 421

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-079-Q1-E1-H6

<400> 1822

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gccccaatct agttcaaatt gtccgtaaac aagttgccat cgccctgaag gccgagatac 120  
ggatggctgc ttctctcatt cgtcttcatt tccacgactg ctttgttaat ggggtgtgatg 180  
cgtcgttatt gttggatgga gctgacagcg agaaactcgc gatcccaaac attaaactctg 240  
ctangaggat ttgaagtaat tgatacaatc aaagccgctg tggaaaacgc atgtcctggt 300  
gttgtttctt gtgctgatat cctcactttg ggccgctcgt gactccgttg tattgantgg 360  
aaggcctggg tggaanagtg gcattaagaa agaaaanatn ggtttggtgg gaaatccaga 420  
c 421

<210> 1823

<211> 391

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-080-Q1-E1-A1

<400> 1823

gggcggacgc gtgggcatta atcatcatct tttcttcaca gagaggaaaa aaaaaaatg 60

gcgacagatt ctcaacaaaa ccaaaagcta acgcttccgt taaaaacaag aatcgctctc 120

accgttatct ccaccatgac cgataacgct caacgtctctg acggaactat caaccgccgt 180

ttcctccgcc tcttcgattt cegtgtctct cccaatccta aaccctcaa catcgctctc 240

acctccgatt tcgtcgtgga tcaatcccgat gatctctggg ttcccattg tacantcnac 300

atgtctccgg gngataaaat cccccgtcgt tgttttcttc cagggcgggt ggtttcgctt 360

ttccttcagt ccgaantggc gtttagcctt a 391

<210> 1824

<211> 415

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-080-Q1-E1-A2

<400> 1824

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tttcttcacg gatttgagca agtgatcttg gaaggctctt gagttctgaa ttccttgtaa 120

gcaatcatgg cagggaaaag agaaaacttt gtgagggtgg atgatttgga ctctagggtta 180

ccatcatcat ctgtagcctt ccaacagaac tacgcctcca atttcagtgg acaacttcat 240

cctattcatg caagcaatga aacttctaaa tncctnaana aaggatcca caagggttcc 300

aaaagggtt aaagtccatn ggacgttcac ttgggttccn gtggttaacc aagcaatgtt 360

nccaaaaaga ccttaaaagt atcngaaang aagatatttg attcctcaag gatna 415

<210> 1825

<211> 413

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-080-Q1-E1-A4

<400> 1825

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catgcaagag agccgcaaca ataggatcaa tgaactcgct gatgatcctc gtgcatggaa 120  
 cgggatgcaa ccagtttctt gatgaattcg ctttacactt gtagaaatca gaattctgac 180  
 ttttgggaga gccataattg ttttaggttct tccaaggcaa taaaaccaca gctgagttca 240  
 gaatcagaaa gcagttacan gtggatgttc aatgggcaat gtctgatgat ttagtangta 300  
 aaaaaagtgt aatattgttn cattcaccaa gtcaagctaa tgnctgggtg gtagctcaaa 360  
 ctggggaact aagtctccg ccaannngng gaccaatggt tttcntaagt ttc 413

<210> 1826  
 <211> 391  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E1-A8

<400> 1826  
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 atcttttctt tgggtgtgact gtggttatat gagcaggggg aggttgtggt gttttcagat 180  
 tctctcttc angcactgga cttgacttgt cntcaattcc tcgacnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn ngatcaaagg 300  
 gtattcgttt ctgcggctcc tgtttacngt gaacttgaag actaagtttt ctttgcnaaa 360  
 ctctcactta cgggtgaaag agttacaggn a 391

<210> 1827  
 <211> 461  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E1-B1

<400> 1827  
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 ggagatttct caaatctctt caacnatttt gatttgccgc catgtatcga cgcgccactt 180

ccggcgtgcg ttctgcctcc gcaaggcttt cttcttccct ctccaggatc gcctctagcg 240  
 agacagcttc gggttcgggt ccanctgcgt cgtcgcttcg caatcagacg aaccgatcta 300  
 agagttttctc ctcggtcttc ngctcctttc gagtttgctc tgcttccacg cgggtggancc 360  
 atggtgggag ctggggatcg cctgctagcc ttcgcgctca agctaggaat tccactccgg 420  
 ttatggagaa atttgaacgg ggaatacgca aaccaagggg t 461

<210> 1828  
 <211> 426  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-079-Q1-E1-G2

<400> 1828

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 cgaacgtttg atcttatcca cgcattggaac accttcacag aaaccaagc acgtggatgc 120  
 agctttgaag atctgcttat cgagatggat cggatactac gccagaagg atttgtcata 180  
 attcgtgaca caactgacaa tattagctat atcaagaagt atctgacatt attgaaatgg 240  
 gataaatggt ccacagagac aactccaaaa ggtgacccctc tgctgaccaa agacgagata 300  
 gttttgatcg ccagaaagaa actttggagc ttgcccgcca tttcaagtgt cctgaaatct 360  
 aacagtcaac aggcgaaatga atgagattta caagcatcaa gaaggcgcgt anctgaagga 420  
 aaatac 426

<210> 1829  
 <211> 359  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E1-B11

<400> 1829

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 gtttaaacga gaggattctc tcatctttgt cnaagagatc ggttgctgca catccatggc 180

atgatcttga aatcggaacct ggagctccag tgattttcaa tgtggttatt gagatctcaa 240  
 aggggagcaa agtcaaatat gaacttgaca aaaaaacagg tctcatcaag gttgatanga 300  
 ttctttattc ttcggttggtg tanccctcac aantaacggg gtttgtccca cggcacacn 359

<210> 1830  
 <211> 449  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-D12  
 <400> 1830

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 natgggaaga gatcggaagg gtggtgtctg atgaggcaag agctatgtac aatggtggcg 180  
 tggccggtct gacatattgg agtccgaatg tgaatatctt gagggaccgc cggtggggcc 240  
 gagggcaaga aactcccga gaagatccta tcgttgccgc aaaatatgcc cgccaagcta 300  
 cgtccggggg aattcaaggt actgctgccg gtaaccgcct taaagtcncc gcatgttgca 360  
 aacattacac tgcttaanga tcctgataa tggaagggg tcaaccgttt ccaacttnaa 420  
 cgctaaaggt cacccaacaa gatttagag 449

<210> 1831  
 <211> 458  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-078-Q1-E1-D3  
 <400> 1831

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 cagattcatc agtccactt gaatttaaag tagccataac tgttcgatca taggatggaa 180  
 gaagcaactc aagtaacgag ttctgaggtc cctgtagtga aaggatgatg tgatgacctt 240  
 aagacagctg atatttccgt caaggctgtg aatggagaag tgccaaagga ggagaaagaa 300  
 gaggaagatg gggaattcat aaaagttgag aaggaagctt ttgatgcaa aggatgatgc 360

ggagaaagca gatcatgttc ctgttgaaga gcaaaaggaa gttattgaaa gaagctcgag 420  
 tggttcacia gagagaacta catgaatcac aagaaaaa 458

<210> 1832  
 <211> 454  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-D4  
 <400> 1832

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 agagaggcct attcttggcc gtttctcttc tcacctcaag atcggaattg ttgggttacc 180  
 aaatgttga aaatctactc ttttcaacac ttttaciaag ctttcaattc cagctgagaa 240  
 tttccccctt tgtaccattg agcctaata ggcacgtgtg aatatccccg atgagagggt 300  
 cgattggctt tgccaaactt acaagcctaa gagtgagatt ccagctttct tgggaaattc 360  
 atgacattgc tgggcttgtt agaggagctc atgaaaggac aaggctcttg gaaacaactt 420  
 ccttgtccca ataattccgt gcaagtttga tggg 454

<210> 1833  
 <211> 519  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-D5  
 <400> 1833

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 aaatcttctc cggcgtgta gcgtttcccc cgtttccct ttttaacctt tgcaaacaat 180  
 gantgggcga ttttctcggt caatctatgt tggttaacttg cccggtgaca ttagggaaca 240  
 tgagattgaa gatattctttt acaagtatgg ccgcattgtc natattgaat tgaagggtcc 300  
 acctcggcct ccatgttatt gctttgttga gtttgagcat tctcgggatg ctgaagatgc 360

catcaagggc cctgatggct ataatttga tggtgtgcg ttgaggggtg aagcttgcca 420  
catgggtggt cccgangacaa gtcntcnaa gtgattcgtc cctgngtggg ctaactggtt 480  
ggtgggtggc aagcngctaa tggntgggtg gaaggtggg 519

<210> 1834  
<211> 474  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-078-Q1-E1-D7  
<400> 1834

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ttaacctttg caaacaatga gtgggcgatt ttctcgggtca atctatgttg gtaacttgcc 180  
cgggtgacatt aggaacatg agattgaaga tatcttttac aagtatggcc gcattgtcga 240  
tattgaattg aaggttcac ctccggcctcc atgttttgct ttgttgaagt ttgagcantc 300  
tcgggatgct gaagatgcca atcaaagggc cgtgatggct ataaatttgn gatggctgtc 360  
gcttgaggnt tgagccttgc acaatggggg gtcnangac aagtcctcaa ggtnttctgt 420  
ccnntggtgg gcctacnnt ngttngtggc aagccggcta atggttggtg gang 474

<210> 1835  
<211> 499  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-078-Q1-E1-E11  
<400> 1835

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gcacttcct tctgcgaaat tcccgaggat ctccagctcc gaattttatc cctcctcaca 180  
ccagcggaga tctccagctt cgcctgcaca tcgaaacgct tcgcctcgct atgtcaagaa 240  
gacggcaaaa tctggcacgt tatgtgcgat cangagatgg gggaagaaaa ctaagatcca 300

gaaatgggca aacgggtcaaa tcccttatag gacaccttta caagactcta aagggattgg 360  
 gngaatctna ntggcttctg ggcgtctctg cggcagancn aatccccgcc gcttcategc 420  
 cgcccgcttg ttttcttcga atgggggtcc tccntttaaa attgggattc nacannttta 480  
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<210> 1836  
 <211> 470  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-E12  
 <400> 1836

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 actcagatgg gtttgctctg aatcgattgg aaaatcaaac cgggtgtggac tctgcaaagt 180  
 tggttgatat gaacagtctt gtgagaagaa aacaanttga ttctgttcat cttatcaaaa 240  
 acgatggacc tcatcagctt gccaaagaaac tatccgccgt tgatcttggt gctattggag 300  
 ttgggacaac aattggagca agagtgtata ttctgtggg aacggtagct agagagcaca 360  
 cangacctgc tctgtctgta tcattcctca ttgctggagt actgctggnt ctctctgcct 420  
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<210> 1837  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-E2  
 <400> 1837

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 ctgaagttca agaaggatgt gatgtttctg actggttcaa cattctgggt cttcatcaaa 180  
 atagggtgaa atcaaaccac aaaaatgcaa taagtgagca ctttcttcca cgtttctctg 240



acttcattgt gtggggccat gagcatgaat gcctaatacga cccccangaa ggtatctggg 300  
aatggggctc cacatcacac aaccaggatc ttctgtggc aacatcactt atttgatggg 360  
gaatcgaagc caaaacaatg ttctccccct taaaaatcaa aggggaaatc aataaccgt 419

<210> 1838  
<211> 465  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-078-Q1-E1-E4  
<400> 1838

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ctccttgatc gggagccgaa acccgaggct tttatcccc gggtccgcgc atggagccgc 180  
tccatgtggg actctccttg gccgagtcgc cgagtattcg acttcttctc cggctaattc 240  
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caaaggcgcg atcgggctg tgtgtcaggt taattgggtc aattgttgat gttgagattc 360  
naagattaag gaggggattg ccccgattna tgacatctcc tcgaaggtaa caggttaatc 420  
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<210> 1839  
<211> 465  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-078-Q1-E1-E5  
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tttgctaagt cggggtcgat gatcgatgat cagtgttcgg agaagttacc ttcttggtta 180  
cgaaatgtgg agcatgaaca cgagaaagga aatctcggta aggttaaaaag atgatccaaa 240  
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ccatcaaact cgggcgtttc ctaaactcag ttttcagccc gtnanaccgc aagttcccg 360  
 ttcagcttgg ntcttctagc cangaccaag atgagtcttg ggagcccaac tgagaaaatt 420  
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<210> 1840  
 <211> 459  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-E6  
 <400> 1840

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 ggcaagcatt tcttctcggn gctccaagc tagaangctt caaccaaca ggggacatgt 180  
 cttcttctat tactccgcgg agtgcagcat cggttccaan ancatcaggt aaagtttcag 240  
 acacctcttc tgggaggcga agatcagaen agtcgctcgc acaatctgtt ccaaattttt 300  
 ctgaacttat aanggnaaac acgaaaccat cttctttaag ctgtcaaaac tactatgcga 360  
 tnacangtga aaagtnntgg tcgcaccaag aatatchagg gnagattcac ttctccnaag 420  
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<210> 1841  
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 agaannnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnattct gttggttttg caatggtttg gaggttcgtt aatggcgctca 240  
 tagactcggg agattaaggg agaacaagta ctctgcatct tctggatttc tcaactatttc 300

tccttctcta gaggaatagg cgagaaattg agattaataa aaaggggtgt tttttgggtt 360  
 cccctccgtt tgtataaaag cctgccgctt ctttaaggggtt ctttggnaat tcccaaagtg 420  
 atggggaggaa aaatcctggt tacttcgcat gaanctaatt aacgaa 466

<210> 1842  
 <211> 462  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 aaaatggctt ggatttgtaa cagcgggttg ggttcaatcc atctccggca acaactacac 120  
 tttttcaaac tactccggtg ctcttaagtc tctcatgaat ctcaaccagc tcgagctcaa 180  
 caacctctct gtcgctaaag acgtcggaaa agcctttggg atcctggctg gccttgccctc 240  
 tgaccgtctt cccactccgg tcactctctt tattgggttg tttgaaggtc ttcttggtta 300  
 tgggtgtacaa tggctcgttg ttagccgcac catccaacca atcccttatt ggcagatgtg 360  
 tatattctct tgtatgggag ggaacagcac aacgtggatg aacacggcgg ttctagtgc 420  
 ttgcatacgc aattttcgac gaaaccgtgg tccggtctcc gg 462

<210> 1843  
 <211> 452  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-D11  
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 catcgacggc gaatggagag aacctatctt gaagaagcga atcccgatcg ttaatccagc 120  
 tactgaagag gtcattggtg atattcctgc agctacaacg gaggacgtgg atgttgctgt 180  
 caacgctgct cgaagagcat tatcaaggaa taaagggaaa gattgggcca aagcacctgg 240  
 nagctgttcg tgctaagtat ttacgtgcta ttgctgctaa ggtaaatgaa agaaagacgg 300

atctggcaaa anctcgaggc gcttgattgt ggtaaaccat ttggattgaa gcagtatggg 360  
 atatggatgt tttgcnggat gttttggaat ttaagctgac cttcctgaag gattagatnc 420  
 taagcagaaa ngcaccagtc cccgctttcc aa 452

<210> 1844  
 <211> 473  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-A11  
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 tcgaggatgat gtgaataaca tcagtgttgg atctgggacg aatatccaag ataatacgtc 180  
 tgtacatgtt gcaaanacca acataagtgg caaggttcta cctactctga ttggggacaa 240  
 tgtaacagta ggtcacagtg ctgtcattca tgggtgtact gttgaggatg atgcttttgt 300  
 tggatatgga gcaacactac ttgatggtgt ggtggttgag aaacatgcc a tggttgctgc 360  
 tggttctctt gtgaaacana acacgcgaat cccttctgga gangtgtggg gaagaaatcc 420  
 aacaangttc atganaaagt taacagatga aagagatagt atacatctca can 473

<210> 1845  
 <211> 427  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-A2  
 <400> 1845

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 ttgaggaagt gaggaagcta ttaggtccat taccggagaa gctttcgagt ttttgttccn 180  
 atgatgcagt ttttaaggtat ctaagggcaa ggaattggca tgtcangaaa gctactaana 240  
 tgcttaanga aactttgaaa tggagagttc aatacaaacc tgaggagatt tgttgggagg 300

aantagctgg tgaaccancn gacaggggaag atatatagat cgantttgtg tcgaataaac 360  
 ttggaccgac ctgttctcat tatganaccg antgttngag aattctaaaa tccgggtgaa 420  
 caangcc 427

<210> 1846  
 <211> 444  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-078-Q1-E1-B1  
 <400> 1846

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 caaccaaact tctctccgc cgtctccaga ccacttctt tccggatctc cgccgtgcaa 180  
 accgacccaa aaacaccagc tgcttcatcg gcgtcggcgg cgacgacgac tccggcaacg 240  
 ttgacgaagc ccgttggagt taatgtgggt aaaggaaaat gggcaccaga gagttggagg 300  
 acgaagaaag ctttacagca accggactat ccagatttag ctgcgcttga agctgtgcta 360  
 gagacgatcg aagcttttcc tccgatcgtg ttcgccggag aagctagatt gcttgaggaa 420  
 cgattaggac aagcagcgat ggg 444

<210> 1847  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-B10  
 <400> 1847

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 ctttcgagga cgatgagaan gagagcnagt atggttacgt tcgtaagggt tcaggtcctg 180  
 ttgttggtgc cnatggtatg gccggtgctg ctatgtatga tttagtgcgt gttgggtcatg 240  
 ataatttgat tggngaaatc atccgtcttg aagganattc tgccaccatc caagtttacn 300

aggaaacagc tggattgaca gttaatgatn ccgttcttcg aacacacaag ccactttctg 360  
 tggagctcgg gccaaaggaat attgggaaat atctttgatg gaattcagag gcctttgaag 420  
 actattgcaa gaatatccgg tgatgtgtac attcctncgg gtgttgt 467

<210> 1848  
 <211> 481  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-B6  
 <400> 1848

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 tcttgaagac cacaaggatt tgatcacatt ggtgcttctg cctgtttatc tgagtttgag 180  
 gacaagaact tctggggcgt ttataatttg ccatggctag taatgagaat ctaccacca 240  
 atgttatcaa gcagcttgcc aaggagctga aanagtcttg acgaatcccc tccaagatgg 300  
 catcaagggt gtggtaaagt accaagatct ctcacaaata tgtgctgata attgaangga 360  
 ccanttgggt actccctaact gaaaaacggg cctttcccgt aangaaagt tggccttgct 420  
 aacatnaatt tccaacaatt ccgccccccc aaaagggcta ctttcaatga cnaaagaatt 480  
 t 481

<210> 1849  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-B7  
 <400> 1849

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 ttcctctgct taaacgaaac cctcaaagaa ataaaaaaaa gctctcaaga atggcgaaca 120  
 aaccaagaac cagatggggt cttccttaca agaccaaaaa cgttgaagac aattactttc 180  
 ttggtcaagt ccttggacaa ggccaattcg gaaccacttt cctctgtacc cataaacaga 240

cagggtcaaaa gcttgccctgc aaatccatac ccaaaaggaa gctcctttgt caagaagatt 300  
 acgacgacgt tctgagagag atccaagata atgcatcact tgtctgaata ccccaacgtt 360  
 gtccgtataa nagagtgcgt acgaggacac caaaaacgtg catccttgtg atggagcttt 420  
 gtgaaaggan gtgagttggt tgataagaan tgtgaaagag aagtcac 467

<210> 1850  
 <211> 486  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-C12  
 <400> 1850

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 tttcgaaaag ctgttgtcaa tactctcgag cggcgtttgt tctatatccc ttcgtttaag 180  
 atctacagtg gcgtcnctgg actttttgat tanggnctc ctggctgtgc tattaatatcc 240  
 aatgtttctca gcttttggcg tcaacatttc attcttgang agaacatgct agaagttgat 300  
 tgtccatgtg tgacaccana ggttgttctc aaggcatctg ggcatgtaga taagttcact 360  
 gatcttatgg gttaagcgat gagaaaactg gcacatgtta ccgtcctgac cacttgcctca 420  
 aaggattatt tgtaccgaga agctggggga aagatnttan atctcctgcc gaaaaaactg 480  
 ccaaan 486

<210> 1851  
 <211> 440  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-078-Q1-E1-C2  
 <400> 1851

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 cgatcaaaga gagaacaact gaatcttcgc cggatactac gccgatgacg attgcccag 120  
 cgccagcacg ccagacagat cgatcagcca ctggtttcaa cctgcttac gtcacgacgg 180  
 cgaaggcggg gagcgttccg gttcaagttc ctccggcgac tgtggtttcc gaaggattag 240

gtaaaagatgc gttgatctca tgggttcagag gagaattcgc tgcggcaaac gcgataatcg 300  
acgcgatgtg ctgcaccta aggatagctg aagaagcggg atctgggatc ggagtacgaa 360  
gctgtattcg cggcgatcca tcgccgtcgt cctgaattgg atccctgttc ttcagatgca 420  
gaagtatcat tcatcgctga 440

<210> 1852  
<211> 463  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-078-Q1-E1-C3  
<400> 1852

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tcacctatca gccggttatg gccctaacc agagtcagct tgatgaagcc atgaaacccg 180  
tatctcatct ttcattgttt tctgttgaga atgggtgcaa ccgaattagc gagtcaaatt 240  
cgacatcaac gtctgttgtg ccaagaaca atactttttc aagcagcaca agtccaataa 300  
attcattgct tgctgagggc aaaattcaat ttgttacatc ttccactgtt atccctcoct 360  
gtggtggggc gtacagagga aaggatantc tttatatttt gaaanaagat aacaaacatc 420  
gaaaatcaat caaccaactg ggcatagaag atttgtgaag can 463

<210> 1853  
<211> 505  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-078-Q1-E1-C4  
<400> 1853

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cgcctaaacc cggaaccctt agacacgcgg tgatccaaga cgagccacta tggatnatct 120  
tcgcgcgtga catggtcata aaactaaaag aagagctgat tatgaactct ttcangacta 180  
tanacggccg tggagcgagc gtccacattg ctggtggcgc gtgtatcacc gtccagtacg 240



tgaccaacat catcatccac ggtgttaaca tccatgactg taaaagaaag gggaatgctt 300  
acgttagaga ctctccgtcg cattatgggt ggaggacagc gtctgacggt gacgccgtct 360  
cgatttttgg tggctccac gttgtgggta gaccattgct cgttgtccaa ctgcgctgac 420  
ggtctgatac acgccaattc atgggatcaa cgggcccaatt actatcctct aataactaat 480  
ttngnctacc acaaataang tcatg 505

<210> 1854  
<211> 437  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-078-Q1-E1-C5

<400> 1854

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acgggntctg cttctccgtc ggtttctctc ggcttctcca ngaaagttgg cggcggcaga 180  
gcagtggctg ttgcagcggc tacgagtggc cacaacaac atgccgatga ccggagtcgt 240  
gttccagcct ttcgaagang tgaacaanag ccgatctggc cattccaatc acatctcatg 300  
cctctctcgc tcgccaaagg tttgccgacg ctancgaang gcagttcatt aatgagcana 360  
tcaaattggtg ggaatacaac cgtcnccta atgtgttacc aantcaantg gtacngcatt 420  
acctttggcc aggagan 437

<210> 1855  
<211> 508  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-078-Q1-E1-C6

<400> 1855

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cgctatggaa tcccaaaca cgtttaagta tgaaagtctt gcgttcacaa agttgtctca 120  
ctgtcaatgg actgattact tctctctgt tccatcgat gaatcggaac tagatgttat 180

tacaagagag attgacatac tcaagccgga agttatggag ctcctatctt cccagggatga 240  
 cgatgagaca tcgaagagga aagtgccttt gattcaattg cttcttaant cttggnncgc 300  
 catttcattt tgaaaatgag atcaananta tactagaaca tgcttttcga aagatagatg 360  
 anatanctgg gtgatgaaaa nggacntgtc tacaatctcc atcatgttcc gttgtcctta 420  
 agaacatacg ggncacaatt taccatcaaa gttaagacaa ttgtttaatc cgggtggcaac 480  
 aantctaaga atgtnttaac atttattt 508

<210> 1856  
 <211> 506  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-D10  
 <400> 1856

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 atatgagtc tccccagcc caacttttct gaaattgaat cttttgggac agagatggca 120  
 ttaattcaga aaccagtggg gtgcanagac actaataaga tcttcatgaa gcaaatactt 180  
 gcgtttactg aacaggtgac cattacacag aacagtaagc tctcgccacg cacatggcac 240  
 aaggaagtga taaacggact aacttgtagt ctctttcccc ctgtcaagaa ttagcaaatac 300  
 atccttcttt tacatgttct gaancacatc taagatagaa ttgaggcaca nangtcnacg 360  
 gatgtgtccc atgancaaca ngaaaaaaaa ganacttccc antgaatctg ntaaacnaaa 420  
 gtcgcaaagc aaactctgtt cacnanggag gagatngngg ccacgccacc tatgggaaga 480  
 catggaatct ggggctaaaa tttcnc 506

<210> 1857  
 <211> 464  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-A10  
 <400> 1857

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cactagtggg gttatctctc tgtgtggaat aaaaagcaag gttttttaat cacttggatt 120  
 gttttaagat atggcaactt tgaacccttt tgatttggtg gatgatgatg ctgaggatcc 180  
 aagccagctc gctggtgcc a tcgagaagat tgataagtcc aagaaatctg ggacagggtt 240  
 cgagcttgcc tgctaagtca gctcctaagc ttccatcgaa gccacttcct cctgctcaag 300  
 ccgtgagaaa agcaaaggag tgatgcctcc acgtgggtgg gganggcctt ngaggattta 360  
 aaccgttggg cnttggtggg ttacaaaccg tgatgattgg taacaatggn tantcaaggg 420  
 gggatacaac taaaaccctc aaggtgaaag gagaatgttt caaa 464

<210> 1858  
 <211> 461  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-077-Q1-E1-A2  
 <400> 1858

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 ggatttcgtg cttatagatc ttgaaaagt ctgagaatcc tgttttggag ttactgcttc 180  
 aagttattgg aagaaattag ggtttcgatc caattttaga attgactcaa ggaattccga 240  
 tattgggggt ttgttgtagt tctgattctc agtgaataag atagaaagat aatcacggga 300  
 atcgaagggt gaaacgatgt tcaagatttt gggattcctg agctcttgca ancttccccg 360  
 ggtttgcct cctgtaacca cctaaaagaa aaanccctca ataattgggt ggaacnaact 420  
 cttctncca nttggcnttt caacttcccg gaaaactggn c 461

<210> 1859  
 <211> 488  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-077-Q1-E1-A3  
 <400> 1859

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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnagc tctttatcac cattgtctcc 180  
 tttcttctct atgtccatt gttcttatct tcaccagttc ctgaccctga atctgtcgtt 240  
 gaagaagttc acaagagcat taatgcgtcg gttgcaggaa gaaggaagtt aggttacctc 300  
 tcatgtacga ccggtaaccc aatcgacgac tgttggcggt gtgaccctca ctgggagcaa 360  
 caccgtcaac gtctcgtga ctgcgccatt ggattcggca aaaacgccat cggtgggccg 420  
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 ccaaagcc 488

<210> 1860  
 <211> 461  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-077-Q1-E1-B10  
 <400> 1860

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 tgttttttgg gtgacaatgg gaggagtggg gcatcttagc acggcgaagt tagctagagg 240  
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 ggcgtatcaa agcagaagtt tgaantgnaa caaacatttg ancagggctg aancaaanct 360  
 gctgtcaaaa agcattcana gttcagatgg tgatgntgag ntgacngngt tccaatctca 420  
 annncaacca accnntttga tcancccggt tcctcaaaaag a 461

<210> 1861  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-077-Q1-E1-B12  
 <400> 1861

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acgggggaagg gatgagagaa ttgtcttttag ctgaccgtgc tacaattgcc aatatgtctc 180  
ctgagtacgg tgcgaccatg ggattcttcc cagtcgatca tgtcactttg cagtatctaa 240  
ngttgacang canganatg gacactgtct ccatgataga ggcgtattta ccaacaaanc 300  
acgatgtttt gtgggattac agttgagccg gngaagtacg acaanttaat tcctcangtc 360  
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<210> 1862  
<211> 503  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-077-Q1-E1-B4

<400> 1862

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caaagattcc gatcatcttc acgtcggagt acacaatctg aaaccgatca tcatcatcat 180  
caattggggt ttttaatccc tagaatcagt agaaaatata gatcattgag cttecgattct 240  
ggctctcggt tgattgtttc ggacaatcag agctttgagt ctccgaaaag gttgggttatg 300  
tcattctctg ttccaaactc ggaacggaaa gattgttact ggtcccgccg gtttaatttcc 360  
tttgaagacg ttctcaatt ctcccgacga ctttccctga tcatccctan aatatccaaa 420  
tccattaaca aaggacaatg caagccttaa ctenggnntg ttaaagcaag taatttttgt 480  
cnaatgaagga tggacacngg ttc 503

<210> 1863  
<211> 430  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-077-Q1-E1-B7

<400> 1863

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tccggtcact ttttctcga cgctccgtcg gccattctct cggaacctta tctcctcttc 120  
atccaccatc cgttctcat ttctgctca tcgtactctc tgcaccaccg gtcaaacatt 180  
gacaccacca ccgcccacac cgccacgtcc tccacctcg cctccggcca ccgctcaga 240  
agctcaattc cgtaaatacg ccggatacgc agcactcgct atcttctctg gagttgctac 300  
ctattttctca ttctcattcc ctgagaatgc tnaacacaag aaggggtcaaa tcntccggtt 360  
acgtcccttt acctgaaaga tcntcanacn gtctctantt ggantgggta ctcatgaggg 420  
tanagaccaa 430

<210> 1864  
<211> 438  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-077-Q1-E1-C4  
<400> 1864

acgcgtccgg gcagcaatgc ttggtcagcc catgagcatg gtgttacctg gcgtggtcgg 60  
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gacccaaata ttgaggaagc atgggtgttg cggaagttt gttgaatttt atggtgaggg 180  
gatgagtga ctttactggt ctgatagagc cacaattgca aatatgtctc ccgagtatgg 240  
agcaactatg ggtttcttcc cagtggatca tgttacactg gagtacctga agttgacagg 300  
aagaagcgat gaaactgtgt caatgataga atcatatttg cgcgcaaaca atatgtttgt 360  
tgactacaac gagcctcagc aagaaagaca tacacatctt atctcagtta gatttggggac 420  
atgttgaacc atgtattt 438

<210> 1865  
<211> 441  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-077-Q1-E1-D9  
<400> 1865

ctaaataaaa acaaaaagct aactgaataa gaagaagtag tgatgcatat cacaaaacca 60  
cacgccgcca tgttttccag tcccgggaatg ggccatgtca tcccgggtgat cgagcttgga 120  
aagcgtctct ccgctaacaa cggcttccac gtcaccgtct tcgtcctcga aaccgacgca 180  
gcctccgctc aatccaagtt cctaaactca accggcgctc acatcgtcaa acttccatcg 240  
ccggacatth atgggttagt ggaccccgac gaccatgtag tgaccangat cggagtcatt 300  
acgcgtgcag cagttccagc cctccgatcc aangatcgct gccaaaggcat cagaaagcca 360  
gcggctctga tcgntnnctt gtttggcnca gatgcgtag gtctccncaa aaggnattna 420  
gcatgttgag ttatgtgttt a 441

<210> 1866  
<211> 422  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-077-Q1-E1-E2

<400> 1866

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aaccagacga caaaagaaaa ttattcatct tagctaagct cgattagttt ctggcggaaa 120  
cggttttgtg gntaattgtt agcatattcc gatcttgccc tcccccgaga gagagagtcn 180  
nnnnnnnnnn nnnnnnnnnn ntctcttacg aagctacgtg tgacctaaac ttctccagat 240  
tgttgtttan agcctcttct tagatttacg anttgtggag cttgtgaaga tttcttggtg 300  
gaattagnn tctccgttcg anatnnagat gaatantaat aancntnata gnnngnagat 360  
tttccacccg ggggattggg tggnggcggg gtnectggtc cccgggtccg aacgtttcag 420  
nc 422

<210> 1867  
<211> 492  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-077-Q1-E1-E4

<400> 1867

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 tatatatata atctccggcg atggagagtt tcgctcttca ctctctctcc accaccgcca 180  
 cttccacctt actctencat catcatcatc accatccctc acgtctctct cttctccgtc 240  
 gtacctcttc gagatctccg cttcaacaa tctccctccg atctctctcc gttcaacctc 300  
 tctccttccc tcttctcaaa ccaattctc gattctccac acgaatcgcc gccgcaccgc 360  
 anagacaacg gnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnaang 420  
 aggggaaact catccctctg attctctcaa tctccgtcgg gctaatacctn cggntttcgc 480  
 tggttctgt aa 492

<210> 1868  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-077-Q1-E1-E7

<400> 1868  
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 nnnnnnnnnn nnnnnnnnnn nnnnnngat gcttcattga ttcacgagaa gacaattcca 120  
 tttctgatat tatttgtttc ctttctcgat cgattctttg cgtaaaaacc tgtttctggt 180  
 ctgtttcaga atctgtctct cttattactc tgttctgttt tgtctgtctt aataaagttt 240  
 ctttctctct ttaaagacaa attcatagtt ccagtttccg aacttctcag cnctcntgtc 300  
 ggattctctg atgaagtcn nagatctctg tttggaacta tcnaatttct canccgctct 360  
 taantttcnt tnttagnttc aagttcaccc ggagatctcn a 401

<210> 1869  
 <211> 432  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-077-Q1-E1-F5  
 <400> 1869



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gattgatcag aggtttgggtc gacgtggcta tcggaggaaa ccaacgccgc ggngganacg 120  
atggtggtga tgatgaangc anctcgaggg acnagagatc cagatcnact tgggctaattg 180  
tggtttccgg tgaggaagag gatcagaatc gcgcgggagg atcgtcncac ggccgtcgcc 240  
ananttcaga ggagaatcaa tgggagaaga anggcgaaag gcttcccaca aggcattcac 300  
aatcacatga cgaggancan naagagaatn catatgcnng ctaaagttag cgagaannca 360  
agacntctcg gagagccanc acgagganna tgatggttgg ggaaaactgt gggcaaaaac 420  
gaaaacctgc ac 432

<210> 1870  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-077-Q1-E1-G6  
<400> 1870

aaatttaata atcaaaataa annnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60  
nnnnnnnnnn nnncaaaagc cattttaaat ctctctcttt ctactcaat ctctctgtag 120  
ctatcagatc ttctcttatg ttgatcccca acananaatt aagagaaatg aatcggagac 180  
agcaagtga acgtagagta ggtaaatatg aagttggaag aacaattgga gaaggaacgt 240  
ttgctaaagt taagtttgct aggaaactct ganactggag aanctgttgc tctcaagatt 300  
cttgataaag agaaagttct caagcataaa atggctgaac agattagaag gagagatagc 360  
tactangaag ttgananaac atcnanntgt tgtgcaatta tatgacggga nggg 414

<210> 1871  
<211> 516  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-077-Q1-E1-G9  
<400> 1871

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tctttcgatg aggaaaagat ttgaaggtac tggtcattct atgcaagacc tatttggcgg 120  
aacaccaatg ccgtttctac ccaatatgaa aatccctcct atggatccac ctgtcttcaa 180  
ccaacaagag aaggacttac cgcctttggg tttggatcag tttccatcag ctctttcatc 240  
tatcccagag aaccatcgaa aggtgctgga gaatataatg ctaagaactg gctctggaat 300  
tgggcacgta cagaanaaga aaacaagagt aggatgcatg gtccgaggat gaactagatt 360  
ctctctggat tgggattcgc agacatgggt atggaaactg ggagacaatt ctgagagatc 420  
caaggggtcan attttcgaaa tttannacan canagnactt gggangctag agtgggaaga 480  
ngagcancgt naattcttgg gaaantccct tcatcc 516

<210> 1872  
<211> 417  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-076-Q1-E1-G9  
<400> 1872

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ttacaaaggc aactcctgaa gagagctact tccgatatct atcaccgccg tgcgatctct 120  
ctcctccgta ctgatttctc tactttctct tcgattgctg atgctccgcc gcacattccg 180  
ccgttcgttc accaagccac ggccgtataa aggtccttcc gccgatgagg ttttacaaga 240  
aacggaagaa gtttctcgga ctttctcttt tccactacta ccaagaagcc tcttaacatc 300  
gttgaaggga aagatgcaat acttgatga tgangagtgg tangcgatat ctggatgcct 360  
ttgctggaaa antcactggt gtcgtgcggg tcaactggcc aaccgggatn attccta 417

<210> 1873  
<211> 412  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-F6  
<400> 1873

ttattgaaga ggcaggacaa ccgaagaatg ctggctcgac tgctgcgact gcttttctta 60

taggtgataa gttgattggt gctaacgttg gtgattctag agttgtagcg tcaagaaatg 120  
gttcagctgt tccactctct gatgatcata aacctgatag atcagatgag cgacaacgga 180  
ttgaagatgc tgggtggcttt attatttggg ctggaacatg gcgagttggt ggaattcttg 240  
cggctctctcg ggcttttggga gataagcaac ttaagccata tgtgattgag gagccagaaa 300  
ttcaggagga ggatataagc acattggagt ttattgttgt tgctantgat ggactgtgga 360  
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<210> 1874  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-G2

<400> 1874

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gcgaaacgat ctccgatcga tggagtgagc gacgagctga atctgattgc ttcacagaac 180  
ttanatcaag ctccgcacg aagactagcc cgttccgctt ttgttgactt gcagcttcag 240  
ctggatcact gcttgttcaa gaaagctccg agtgggatca gaacagagga gtggtatgag 300  
agaaattcga aaggggaaga tattttctgc aagagttggt tgccgaaatc cggcgacgaa 360  
atcaaagctg ctgtatgttt cctgtcatgg ctattggaag cacttgcact ttccttctt 419

<210> 1875  
<211> 400  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-G7

<400> 1875

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnacta cnaataaaaa 120  
gagtttggac cgatattgaa atttgaagag gtcataagag agactgaagc tagangagct 180

actcttccat ctgatatggt ggaagctgct aanaactatg ggatccgcaa antgcttctc 240  
 cttangtact tggatttgca ganctcagca gggcttcttg ggtttgcnat aagatcatgg 300  
 gctatgcctt ncgtaacana atgtttggct gatccatctt tcctcttcaa aatccggggc 360  
 tnannacagt ncantnaagt ccttgccggt nccaccggtt 400

<210> 1876  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-074-Q1-E1-G8  
 <400> 1876

anncgctcng ttgatgaacc cggtcttgca tttgggtgatg acgcaaaagc aaggatggct 60  
 actatcacia tttttacat tgcaaacaaa tatggagatt atatacgtac gggttggagg 120  
 aacatattgg actgtatctt acggctacat aaacttggac ttctgccagc tcgtgtagcc 180  
 agtgatgcag ctgatgaatc anaacattca tctgagcaag ggcaaggaaa gcccctcgcg 240  
 aattccctat cttcagctca tctacagtca atgggaactc cgaggagatc ttccggattg 300  
 atgggaagat ttantcagct tctttcactt gntacagaag agccaagatc acaagcctac 360  
 tgagcaacag cttgcatgct catcaacgaa cacttcanac aattcagaan tgtcacattt 420  
 gaca 424

<210> 1877  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-074-Q1-E1-H10  
 <400> 1877

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 nnnnnntggt tttccacata gtattggagc ggaacatgca gttgcatcct cgtttctttg 120  
 gtcgtngcct aaaagaaaac ctcgtatcta agctcatgaa agatgtcgaa ggcacttgca 180  
 gtggccgaca tggatttgta gtggcgataa ctggaataga tacaatagga aagggtttga 240

tcagagatgg gactggtttt gtcacctttc cagttaaata ccaatgcgtc nttttcagac 300  
ctttcaaagg cgaagatttt ggaagctggt gtcactttgg tcaataagat gggattcttc 360  
gctgaatctg gcctgttcag atttttgtgt ctaagcattt gattccaaga tgatatggct 420  
ttcangctgg aggacatg 438

<210> 1878  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-H2  
<400> 1878

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atctccacta atctctgacc tcagatcgct tccgacgccg ctgaactgtg tccgtcttga 120  
tctgtgttta ggagaaagct tctagggttt ttgttttggg tgctgagtag aatttggttg 180  
atctgaaacg gaaatcaaaa tgggcttttt cagtacgata ctaggatttt gtggatttgg 240  
agttgggatt tcattgggac ttgttattgg ttacgttctc ttcgtctact tgctccccaa 300  
cgacgtcaag gatcctgaaa ttcgttcaat agctgaccaa gattccaaag ctatgctacg 360  
gatgcttcca ngagatacct ctatgggtca aaaatccgga tttcgatcgt gttgac 416

<210> 1879  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-H3  
<400> 1879

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gaatgactct ccctttaaga atgcaaaacc agtggaagga atcttttttg gtactcagaa 120  
gaatgtggta ccgatgcagc agagttcagt aacatcagca tcattggata aacagagggc 180  
tgagttagct aggaagcatg tgagagctct taataaccaa tttgtaagtt ggggtgcagtt 240  
acagctgaag aatcatcctg atgaactttg ggaagatggg atgaatgact acattacgca 300

tgcttcaaac attctggaaa agtttaagga tgtggtcagc tggcttaaag aaaataaggg 360  
aaagggggag aatttatccc ctgaatcccc tggagcagaa aataaantta gtgggctg 418

<210> 1880  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-H6  
<400> 1880

gaatcaacca aaaacatctc cgactccgcc gccacactgg atgcggtatc caccaacggt 60  
gataatccct catcagatga tgtacgcgcc gccgccgttc ccaccttatc atcagtatcc 120  
gaatcaccac caccttcacc atcaatctcg tggtaataag catcaaaacg cttttaatgg 180  
tgagaataaa accatatggg ttggtgattt gcatcactgg atggatgagg cttatcttaa 240  
ttcttttttt gcttccggcg acgagagaga gattgtttcg gtgaaggatga ttcgtaataa 300  
gaacaatggt ttatcaagaa ggatatggat ttgtggagtt tgagtcccat gatgtanctg 360  
ataaggtttt gcgggagttt aacggggaan actatgccaa ntactggacc aaacc 415

<210> 1881  
<211> 442  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-H8  
<400> 1881

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accttaagaa aacgttacaa atggctgttg aagcaagaca catgaatctc ttctcttctc 120  
aatacattac caacagagaa tgtgttaaatt ctcaaacgaa tatgaacaac ggacaacaaa 180  
tcgccggcgg tggttttccg gtaacaatcg gtgatcgga tttacagtac atagatccga 240  
ttaacagctt caacaaatca gaaagcgagc tcacaagcta tttcaaaacg tcagaagaga 300  
ttcaacgttt gattcagacg ctttaatcgc atctcangaa acgcagangc aatccgcgtt 360  
ttctccggcg tcattaatcg acgcagagtt agtttcacag gatncaacag cnaaaacnca 420

ngaaatcgaa ttggaatncg ta

442

<210> 1882  
<211> 404  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-075-Q1-E1-A4  
  
<400> 1882

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aagtaccaag agatagtcaa aggagattca gggagattta gacagataat cataaacctt 180  
gttggaatt cggttaaatt cacagagaaa ggacatatct ttgttaaagt ccatcttgcg 240  
gaacaatcaa aagatgaatc tgaaccgaaa aatgcattga atggtggagt gtctgaagaa 300  
atgatcgttg tttccaaaca agtcaagtta caacacattg agcggttaca agctgctgat 360  
ggtcggaata gctgggattc attcaagcat ttgggtctct gang 404

<210> 1883  
<211> 401  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-075-Q1-E1-B5  
  
<400> 1883

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taagatctac ttcgttttgg aattcgtcac tgggtggggag cttttcgata aaatttcaag 180  
caatgggaga ttgaaggaag atgaggcgag gaagtatttc caacagctga ttaatgcggt 240  
tgattattgt catagcaggg gagtttatca tanagacctt aagccagaaa atttgctttt 300  
ggatgcta at ggtgctttga aagtgtctga ctttggattg agcgctctac ctcagcaagt 360  
tcgagaggat gggttacttc acacaacctg tggacaacc c 401

<210> 1884

<211> 393  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-075-Q1-E1-B7

<400> 1884

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 acggggaagg gatgagagaa ttgtcttttag ctgaccgtgc tacaattgcc aatatgtctc 180  
 ctgagtacgg tgcgaccatg ggattcttcc cagtcgatca tgtcactttg cagtatctaa 240  
 ggttgacagg caggagcgat gacactgtct ccatgataga ggcgatttta cgaagcaaac 300  
 aagatgtttg tggattacag tgagccggag agtaagacag tttattcctc atgtctggga 360  
 attgaatctc gangatgtgg aaccttgtgt ttc 393

<210> 1885  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-074-Q1-E1-F3

<400> 1885

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 gaaggccact gaattactct ctccccctctc ttggcagatc ttcttcttcg ttttttcccg 180  
 acaaacgaca tttccgaaat ggctgcatcg tacgaagaag agcgtgatat tcagaagaat 240  
 tactggatag agcattccgc tgatctgact gttgaagcta tgatgcttga ctcgagagct 300  
 tctgatctcg acaaggaaga acgtcctgag gtactctctt tgctccctcc atatgaaggn 360  
 aaatcagtgt tgggaacttg gagctggtaa ttggncgttt caactgggtg gaattan 417

<210> 1886  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
 <223> Clone ID: LIB22-075-Q1-E1-C1

<400> 1886

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 tcgtcaacga aggagaattc ggtgaatata tcaactgagta cgacncaagt tacagattca 180  
 tcgaatcatc aaaccangag cttcttcaca tcaccattcc agctcttggt ttacaacact 240  
 acccctagcg cctacatctt agctctccga gtcggactca aggcgtgacg agtctaccat 300  
 gcgttggata tggggacgcg aatcgcaaca aaccggtctg gggaaaacgc tacactctca 360  
 ctcnngcccg taacgggaan ctccgtcctc cgctgaagcc tgnccggacga gtcnaatggg 420  
 gagactaac 429

<210> 1887  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-075-Q1-E1-C3

<400> 1887

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 atatcgccgg ttatctccct ttagagcttg gtctcttaac cgatcttgcc ttgttccata 180  
 tcaattccaa ccgttttcaa ggtcaacttc ccaaaactct aaaatgtctc catcttctcc 240  
 atgagcttga cgtcagcaac aataaactct cgggcgaagt ttccttccgt aatcttctct 300  
 ttgccttccct tgaagtttct cnacattang gttcaatgag ttccaagggt gatgttcccta 360  
 gccaaactctt tgacctaaac ctccaagctc tcttcantaa cgacaacaaa ttccangttt 420  
 a 421

<210> 1888  
 <211> 403  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-074-Q1-E1-B6

<400> 1888

acnecgtccgc ccacgcgtcc gcggacgcgt gggggagtct cttatgttgg gtgaagaacg 60  
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 ctcttctttt ccaaactccc ctgatgattc ggaccgtcgc agttcttctt cttcttcaag 180  
 gagaggattg tcgaaacatt acaaaggtaa atcacaatcg ttcacaacgt tggcagaagc 240  
 gctaactgtg gaagatctcg cgaagcctga gaatccattc aacgcaaagc tgaagcagcg 300  
 acgaagagag ccctcactgt cgtagattat caggatgcgg cggcgcacg agcgaaattt 360  
 aagtgttcaa cgacnttttt tctcgctggg ggaacgatng aac 403

<210> 1889  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-074-Q1-E1-B8

<400> 1889

tcagtgaaca aatttggcta tggctttttc tgcaccatca ctttccaaat tctctctttt 60  
 gggttgccatt tcagcatcag ctctcctctg ttgtgctttt gcccgatgatt tctccattgt 120  
 tggatacacg ccggagcatt tgacaaacac tgacaagctt ctagagctct tcgagtcacg 180  
 gatgtcagaa cacagcaagg cttacaaaag cgtggaggag aaggtgcaca ggtttgaggt 240  
 tttcagagag aatctgatgc atatagacca gaggaacaat gagatcaaca gttactggct 300  
 cggtttgaac gagtttgcgg atttgaccca tgaagagttc aaaggaagat atctaggact 360  
 tgcaaagcca caattctcta gaaagagaca gncctcagct aacttc 406

<210> 1890  
 <211> 456  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-074-Q1-E1-B9

<400> 1890

ctgccaggtc atatcaagaa gcccggtcg acccactnagt ccggagagct tctcacagtg 60  
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tacttcgctt tcctcgcttc tgctgaanna tcacgtccat caattcgtga tcacaccgac 180  
accagtgaag aggctgtgca gaactcacca aagcatcact gtgaatggtc agtaccctgg 240  
tccaacgctt gtggtcagga acggtgactc tctcgcaatc actgtcatca acagagccccg 300  
ttacaacatt agtattcatt ggcattggaat cagacagctg cggaatccgt gggccgatgg 360  
tcnagagtat ataacacaat gtccgatccg tccaggacaa acctacactt acagattcan 420  
natcgangat caagagggta cgctttggtg gcaccc 456

<210> 1891  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-C3  
<400> 1891

acgcgtccga attgctttta gtggagctga agatgttgca ttgattgaat atgcacgttt 60  
aactggaaag ccatttaggg tttttagttt agatacaggg agattaaacc ctgaaacgta 120  
caggctcttt gacgcagtcg agaagcagta cgggattcga attgagtaca tgtttcctga 180  
tgcagttgag gttcaagctt tagtgaggaa caagggtttg ttctcattct atgaagatgg 240  
tcatcaagag tgttgccgtg tgaggaaagt tagacctttg cgtcgtgctc ttaagggctc 300  
taaagcttgg attacaggac agaggaaaga ccaatcctcc gggtagcaaa tctgagatcc 360  
ctattgttca agttgatcca gtgtttgaan ggttaagatg gcngtggttg gaaa 414

<210> 1892  
<211> 397  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-C5  
<400> 1892

agatccttaa atctccaaat ttctctctca gtcttatcat tatagacaaa acccttttct 60

ttgtaaattt tttcccaatc tatggaagtg cctagtgaaa ccacgaattt agccgatctc 120  
 cggcgaccat tgggtggttcc ggttgtctcg gagcgtaaac ctccggcaga cgtcggactc 180  
 ggactagaga gtgttttaac ggagcgtagc cttccgtacc ggagggcgcgt gtacttaggg 240  
 gcatgcatag agatgaagct acttttccgg ttggcacttc cggcgatact tgtctattta 300  
 agtcaacagc ggaatgggta tttccgctcg gatcttcgcc ggacatctcg gtaaaaatga 360  
 gctcgccgcc gcgtccatcg gaaacagctg gctcant 397

<210> 1893  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-074-Q1-E1-C7  
 <400> 1893

caactagttt tgtttttccct ctttcaaaaa tgcatttttc ttcgttttca acatcgtcca 60  
 cttggacaat cttaatcaca ttgggatgtc ttatgcttca tgcatttttg tccgctgctc 120  
 aactcacccc taccttctac gatagggtcat gtcctaattgt cactaacatc gtacgagaaa 180  
 ccattgtaaa tgagttaagg tcggaccctc gtatcgctgc gagcatcctt cgtcttccact 240  
 tccacgactg ctttgtaaat ggttgtgacg catccatctt gttagacaac acgacatcat 300  
 ttcgaacaga gaaagatgcg tttggaaacg caaatcggc tcggggattt ccagtgattg 360  
 anagaatgaa agctgcggtg gagaaggcat ggccaagaaa cgtttttn 407

<210> 1894  
 <211> 332  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-074-Q1-E1-C8  
 <400> 1894

agatgaacat gcatcgtgat aacattagat ggttacaata tcttcaccaa cttggaagtg 60  
 acacaaatta tacattacta ctagttagta ctagtagatc tgaatctctc tctctttctt 120  
 cttctctaata gccgtaaatt gtaagctaac tcttcccaca tantgcctcg attctcgctt 180

ttgctctctc tctcttttct cgcacaatga ataggaatct cagagaatct cttgccggtg 240  
 ggaggaatat tccggcgatc tctcaagttt cgtagaggca ataacaacaa cagcaacaan 300  
 atctctcaaa atggcttctc tagaagattc cn 332

<210> 1895  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-074-Q1-E1-C9  
 <400> 1895

cgccangtaa tatcaagaag tcccgggtcg acccacgnnt ccgcccacgc gtcgcacca 60  
 ccaacaacaa caactccact aaaaaattca tagctctaca agagtcacct catagagaag 120  
 tgaagagaca gagatagttg tgacagagag attcatggcg gaagcttgcg gaggtagaag 180  
 gatgaagctg ggaagccaag gccttgaggt atctgcgcaa ggccttggtt gcatgggcct 240  
 ctccgctttc tacggtgctc ccaagccgga aatgaagcc atcgctctca tccaccacgc 300  
 tattcactcc ggcgttactc tcttgacac ctccgatatc tacggccctg agaccaatga 360  
 agttctctc gggaaaggct ctcaaggatg gggtagagaa aaaagtggaa cttgcgacca 420  
 aatttggnat caagttatca g 441

<210> 1896  
 <211> 390  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-074-Q1-E1-D5  
 <400> 1896

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 gtttcttaaa aattatacnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnncag gatttgtttt ttccgtttga 180  
 ggtaaagcag ctttgcagtt aaagaaacct tgagtatcca atgtccccgg aagaggagct 240  
 acagagcaat gtatcggtgg ctaagttctt cacctactag caattgcac tccaggaaca 300

ctctaggagg acttaaagag cataactact tgggtctctc tgattgttct tctgttgga 360  
gctctactcg ctctcccctt gctgaagatg 390

<210> 1897  
<211> 395  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-E1  
  
<400> 1897

aaacaaanaa aaaaaaagat cagacaaaat aaatcattgt caatcgacga ttcanaagct 60  
taatcgtcta gaatcaacat aattcttcga ttgtacactc tgattggcta cttgttagat 120  
ctaagaagag gccaaagtatt atttcgtact aacattatca tggaggagac ttctattgaa 180  
gcanacactg tggagaagtc ccaaaccata taaaaggctt cacgtcagca agatcgggtga 240  
atgatattcg tgccgccatc gtctcaagaa taaactgact attttctaaa aaggttatcg 300  
ccaanattaa gtatttacga attanaattg ataaggaang tcactaggaa ggagctgtgg 360  
aaaaganaat tgtggatttg ggcanaaatc tgggg 395

<210> 1898  
<211> 449  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-E10  
  
<400> 1898

caagaatgcc cgggncgaen cagantccg cccacgcgtc cgcaaagcct ggatcaatca 60  
tcatttcat caatttcag attcagattc caaatctccg aagcttaacy aaaacaatgg 120  
cggcagaacc taacngntaa gaatttcctt gtctctctt atgtcttggc tcgtctccct 180  
tctttcaccg ccaannnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
nngatgttct cgcttcaatg acaagtgcga tctctgacgt cgccgagact cgatctatcc 360  
ntcgaaccct aggacctaga ccagatnacg antcagtcga taaggctcgt gctaannctc 420

ncggaaatcg aatcggtcgt atctgaaat

449

<210> 1899  
<211> 444  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-E11  
  
<400> 1899

caagaatncc cgggtcgacc cacgaatccg gatgttctgt gcagtgataa aacaggtact 60  
ctcacgctca acaagctttc tgtggataag aatctgatcg aggtttttaa gaggggcatc 120  
gacagagata tggcngtgct tatggctgca agagctgcac gtttagagaa ccaagatgct 180  
attgatactg caattgtttc gatgttgctc gacccgaaag aggcacgtgc cgggattaaa 240  
gaactccatt ttcttcatt cagtccagct aatagaagaa ctgcactaac gtacctagac 300  
ggacgaaggc aaaatgcacc gagtgagcaa aggcgcgcct gaagagattt tggatatggc 360  
ccacaacaaa ttagaaatca aggagaaagt acatgctaca atncgacaaa tttgcagaac 420  
gtggcctaag atcgcttggg ttgg 444

<210> 1900  
<211> 473  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-E3  
  
<400> 1900

ctgtttacgc cttccagtag cctccgaaat tccanggtcn acccacgcgt ccgcggacgc 60  
gtgggattta ngttttcata ttacttgaca aacctgatga gctactcgac aagcaagtct 120  
cagagcatat tatgtcgctt cattctgcaa gtggagaaac atcacctgca ctaaagaagt 180  
ttaaaccaac atcacagaat gctgggtatg caaacatgca tgcagaaggg aattctctac 240  
tttcaagact gcggttgac tctgagaaag atgacgactt ttctccggtt cctggccaat 300  
tgcttaggaa atatatttcc tatgcacgga attttgtcaa tcctaagatg tcaaaggatg 360  
ctggagaaga tcatacagaa gttttacttg aagctgagag accataacac atctgctgat 420

tccacaccaa taacagcaag acaactggaa agtttgggta ggcttgctca aac 473

<210> 1901  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-E4  
  
<400> 1901

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atccacacat acaagaagac gcagggtgtct ctgggtaatg gaatatcgat ggggtggaggt 120  
gcagcattga tgggtccctat gaagttttca gttgtgacag agaaaactgt ttttgcgact 180  
ccagaagcaa gtttcggggtt tcacactgat tgcgggttct cctacatcca ttcacgtctt 240  
cctggtcatt tangagagtt cttggcttta actggggcaa gattgaacgg caaagaactt 300  
gtagcaattg gaatggcaac acattttgta ctttctggta aattgatgga tctggaggca 360  
cggcttgtga gtttaagact caagagangc ggatgtatcc aatccacaat tgaa 414

<210> 1902  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-F1  
  
<400> 1902

gaancaacct ttggatgtgt ttgttcgagt ttcgagggtt gtggctagtc cgaggaggaa 60  
agcggttgag ttgttgctga gaggaggagg tgttgaggga ttgatcgatg aggcggttga 120  
agaagagatc aagattgtct ctaagtatcc agctgatgct tctttaccgg atataaacga 180  
aggggtttat ggaagtgatg agtttaggat gtatagcttt aaggttaagc catgttctag 240  
ggcttattct catgattgga ccgagtgtgc ttttgttcat cccggagaaa atgcgangag 300  
gagagatccg aggaagtatc cttacacttg tgtcccctgt cccgagttcc cgtaaaagga 360  
tcatgcccc aagaggagaat tcctggcgan tatgcctcac ngggttttcc a 411



<210> 1903  
 <211> 399  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-074-Q1-E1-B5

<400> 1903

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gagcaagcca ctacactctt catattgctt tccactctcc tcctcgccgt ctccgttgag 120
tctcctcagc caccgctatt tcccgatgaa gctctcccca ctaaactctgg ctacctcccg 180
gttaaaccgg caccgggctc gtccatgttc tatgccttct acgaagccca agagccaacc 240
acacctcttc ctgacactcc gctcctcggt tgggtccaag gtgggccagg ctgctcttca 300
atgattggca acttttacga gctcgggtccc tggcgtgtag ttacacgcgc cacagacctc 360
gaagcgcaaa cccggcgcat ggaaacgtct aatcggacn 399
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<210> 1904  
 <211> 445  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-073-Q1-E1-F1

<400> 1904

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cgttacgccg ccgttaccgg tgccanaatt cccgggacga cccacgcgtc cggttcctct 60
aatgtggact aaacacttgt tgcagccatc cctcctttac ccgtgaatca naagcttata 120
caggacaatg cactaggtgt gaggaatgct gcacaaagaa agcttctcga tgagcttggt 180
attgtagctg aagatgtacc agtcgatgag ttcactccct tgggacgtat gctgtacaag 240
gctccttctg atggcaaatg gggagagcat gaacttgatt acttgctctt catcgtgcga 300
gacgtgaagg ttcaaccaa cccagatgaa gtagctgaga tcaacgtatg tgaagccggg 360
aanagctgaa ngagctggtg aagaaagcac atgcangtga ngaacggttg aaactgtcac 420
caatnggtca aaaatngggg ggggg 445
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<210> 1905  
 <211> 392

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-073-Q1-E1-F3  
  
 <400> 1905  
  
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 tgttgagaag ggcagagata ttgccactgt tcttgaccag tactcaaagt ttgtgaagcc 120  
 agcatttgag gatttcatac tccaacaaa gaaatacgca gatataataa ttccccgagg 180  
 tgggtgataac catgttgcta ttgatttgat tgtgcaacac atccatacga agctcgggtca 240  
 acatgatctc tgtaaaatct atccaaatct ttatgttatt caatcaactt ttcagatacg 300  
 tgggtatgcac actctaattc ggcactctaa aacaacaaag catgancntt ancttccant 360  
 ccnatngant gaaacctttg gggcccttna ca 392

<210> 1906  
 <211> 368  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-073-Q1-E1-F5  
  
 <400> 1906  
  
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 ttcagggtga aggtggtttt gattgtgctt tggatcttgt taatcacatt cgtagcaagt 120  
 atggtgatta ctttggatc actgtcgtg gttatcctga ggcgcaccc gatgttattg 180  
 gtgagaatgg tcttgctct aatgaagctt atcagagtga tcttgagtat ctgaagaaaa 240  
 agattgatgc tggagctgat ctgattgtta ctcagctttt ctatgatact gatataattcc 300  
 tcaagtttgt gaatgattgt cggcaaattg ggattanttg tcccattgtt cctggaagta 360  
 agcccnaa 368

<210> 1907  
 <211> 444  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations

<223> Clone ID: LIB22-073-Q1-E1-H4

<400> 1907

agattaccgc ggtccgacgc atgcagnaaa tttcatgttc ntcttcctcn tccgattcat 60  
agtttttttt ttttccggtta acttgtcatc aattagatct cgtccgaagt tgaatcttta 120  
gttcgcgagc ttttggacaa ctctcgaggtc ttagctttgc aatgaaattg tacgaacacg 180  
atggagttga tttagaagat gggaagacag tanaatccgg aggagataaa ccaattccaa 240  
gaaagataca taaccgggct ttgttatccg gtttagctta ttgcatttca tcatgcagta 300  
tgatacttgt caacaagttt gttctctcca agctacaact tcaatgctgg ggatnttctt 360  
tangttataa ccanaacttt gncnccgggg atcaattggn ggttgggggtt cangttttaa 420  
aggggcctaaa aaccaangg aacc 444

<210> 1908

<211> 399

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-073-Q1-E1-H6

<400> 1908

ggtaccggtc ataaattccc gggncgaccc acgcgctnaa gtgactcttc tctctctgta 60  
tattactctt ccttcactat ctctctctct ttaactgggtc ttcttcagct tctgagtctt 120  
ctctctcttc tctatctctc aagtgggctt tgctttgctg tttttgtctt ccttcgacga 180  
ctcacttttg cagattctca taaattcttc aaagctttga gtcttttttc agattcgagg 240  
gtcgggttta tatatgcttc aaatctctta cccaaatcag gtatgganac tctgcatcca 300  
ttctctcacc tacctatctc tgaccaccgg ttcgttgctc aaganatggg gagcttacac 360  
aagctcnagt ancggtaagt ggactaaaga agagaacaa 399

<210> 1909

<211> 472

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-073-Q1-E1-H8

<400> 1909

acgcctgccca tgtnttcggt gcnnagttcc gggnaagaat tcacgggtcg acncangcgt 60  
cnnacaaaag tcatctcctt cttctttctt gatctagcta gcggaaaatt tgacaatggc 120  
aagaatcgga agctttctca ttattcttta cctcatttac gctcttactc tctgcatctg 180  
cgacgacgac gagagtaact atggcgggcga caaagggaac ctcttcccag gtttctacag 240  
aagctcgtgc cctagagccg aggagatcgt gaggtcagtt gtagccaaag ctggttgaag 300  
ggagactcgt atggctgctt ctctcatgag gctccatttc cacgattggt tcgttcaggg 360  
ttgtgatgga tcgttgcttc tanacaccan tgggagtata gttactgnga agaactctna 420  
accgaacaac naatttnggt ncccccggt ttgaaattnt tacccaaatt ta 472

<210> 1910

<211> 469

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-074-Q1-E1-A11

<400> 1910

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accgtacatc ttcttcccag aaacatggct gaggtctctg atttgttgga atggcctaag 120  
aaggataacc gtcgttttct ccatgttgct taccgcgttg gtgatcttga tcgcaccatt 180  
gagttttaca ctgaggtctt tggatgaag ctgttgagga aaagagatat ccctgaggag 240  
aagtattcna atgcttttct tggttttgga cctgaaacat cnaactttgt tgtgcagctc 300  
acatatnacn atgggtgttan ctcatatgan attggaactg gctttgggca ttttgccaat 360  
ttcannncaa gatgtttcna anaccggttt gacaacctcc gttccannng tcgaaaatnn 420  
gacttagggg aacctggctc cangtcaagc gtggaaggcc agtnttcat 469

<210> 1911

<211> 427

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-074-Q1-E1-A12

<400> 1911

ggtcgaccca cgnatccgga acaacacaga gcagagaaaa aaaagaggta gcnnnnnnnn 60

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120

aaggtctcaa ctttgcttac aacaatggct ttaatccacc gacggactta tccatccaag 180

ggatcacaac cgtcacaccc aacgggtctct tgaagctaac caacacaacc gttcagaaaa 240

ccggtcacgc cttctatacc aaaccgatcc ggtttaaaga ttctccaaac ggcaccgttt 300

catccttctc gacatcggtc gtcttcgcta ttcactctca gatcgcgatt ctacgcggtc 360

atggcatagc tttcgtcgtc gctcctaacg caagccttcc ttacggcaac ccaagtcaan 420

acatagg 427

<210> 1912

<211> 408

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-074-Q1-E1-A3

<400> 1912

acgcgtccgc accaccaaca acaacaactc cactaaaaaa ttcatagctc tacaagagtc 60

acctcataga gaagtgaaga gacagagata gttgtgacag agagattcat ggcggaagct 120

tgcggagtga gaaggatgaa gctgggaagc caaggccttg aggtatctgc gcaaggcctt 180

ggttgcatgg gcctctccgc tttctacggt gctcccaagc cggaaaatga agccatcgct 240

ctcatccacc acgctattca ctccggcggt actctccttg acacctccga tatctacggc 300

cctgagacca atgaagttct cctcggaaag gctctcaagg atgggggtgag agaaaaagtg 360

gnacttgcca ccaaaanttg ggaatcagtt atcanaaggg gaaaaagg 408

<210> 1913

<211> 372

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-074-Q1-E1-A7

<400> 1913

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agctcgaaac ttaatttaga atcatacctt tttctggatt tggctgacga atccgttttc 120  
aattgcacga gttgcttcgc caggtttata aacttaagaa tgtctaatta tcaaggggat 180  
gatgctgagt acatggaaga tgtggatgat gaaatggatg aggatgattt agatgaggat 240  
tttctggtgg atgatatggn tgccctctgat tccgatgtcg atgagtttga ctactctaata 300  
aataagaata gctgacactt cagctgacca agcccggaaa gggaaagaca tccaggggat 360  
tccttgggac an 372

<210> 1914  
<211> 464  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-B10  
<400> 1914

tcttgncccg ccaggtacan atcaagaatn cccgggncga cccacgaatc cgtccacgcg 60  
tccggaaaga cagagataat gacgagagtt ggcagaaga gattccccg cnanagaaga 120  
accnccgcg gcaactaaaa aacgattttt gntccggga anattcgtga caatcttgtg 180  
tancattaac ttgataantt acnttgatcg aggagtgatc gcgagtaatg gtgttaatgg 240  
aagctcaaaa gtatgtgatg ccaaaggggt ttgctctgca ggaactggaa ttcagggaga 300  
gtttaactta actaactttg aagatggtct tttgtcatct gcgtttatgg ttggacttct 360  
tgtggcttct ccaatattcg ctggattgtc aaaaagattc aaccctttta aactaatcgg 420  
tgttggatta actgtttgga ctattgctgg ttaatcggtt ggcg 464

<210> 1915  
<211> 403  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-B11  
<400> 1915

gggctcacta ctctctttca tttctctttt tcgttgactt actaaagtac tcttgtttca 60

atcttcattc tagagagatt ctgtttcatg gatgnnattt tgccagtacc cgttgatggg 120  
 ttcagattcg acaccgggtc tggatcttgt tgcaaaccga ggaacaatct tgaatctggg 180  
 acgaccaatc gtttcacttg tttcaacgaa tctgaatctc angagcaacc cttctccgac 240  
 cgagtctaag gtatgttcag attaccttcc tgtctttaag tacatcaatg acatgttgat 300  
 ggaanaagat cttgaagggtc agtcttgtat gttggaagac agtttggctt taaaaagccg 360  
 cagagagatc tttcttcgaa gtgctcaaga tcaaactcca atc 403

<210> 1916  
 <211> 435  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-074-Q1-E1-B12  
 <400> 1916

aatncccggg tcgaccacg natccgcgga cgcgtgggct aagttgctgt cacacttgtg 60  
 ctttatgcaa aagggaata caaggatgga aattttagcc ctgatcaatc ctatctctat 120  
 cttaccatca nngatacaat atcatacact gtagctctgt acgcgctggg cctcttttat 180  
 gtggcatgca aagatctgct tcagccattc aatccagtcc caaaatttgt gattataang 240  
 tctgttgtct ttctaacctt ttggcagggt gttctagttt tcctttttgc taaatctgga 300  
 tttataangg atgaagaata agcagccctc ttccaaaatt tnataatatg tgtngaaatg 360  
 cttattgctg canctgctca tttctatgca tttccgtaca aangaatntg cacaaggcca 420  
 atgttgggag ganct 435

<210> 1917  
 <211> 383  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-074-Q1-E1-B2  
 <400> 1917

taagacgccc aatgctcctg ccaaaaccaa aaccgggtgca ggcattgcat gttctctctg 60  
 tcctcatccc acatgccaac actctgtcag aaaccaagga gtctgcgctt gtccagagtg 120

tgaaggcacg ctcgtcttgg acccggttag cttccccaag tggaaactca actgcaactt 180  
 gtgtagttgt atcgttttgc ttccggaagg tgctcatcgc atcaccacca etagtaaccg 240  
 ctgtcccgag tgtgattcaa gccatcatag agatcgattt caacaagaaa actactcctc 300  
 tggagaacgg agccactctg catcaaggat gtgttctatg tgacgagttg cttctcctca 360  
 cttttagtaa antgaaacat tgg 383

<210> 1918  
 <211> 361  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-073-Q1-E1-E5  
 <400> 1918

acgcgtccgc ccacgcgtcc gcccaaactc gacgcttctc tctctctttc tggatatctgc 60  
 gtttgattcg gagaagaaaa aaaaaaaaaa ggcaaagaga gagcttcaat ggagtttagct 120  
 tctttccttg gtagagctct gtttgtttcc gtatttcttc tctccgcattg gcaagagttc 180  
 aatgattttg gtgaagatgg tggccgatca gctaaatctt tgaaacccaaa attcaatgcc 240  
 tttgtaaacc atgtgacaac tcacactggc cagcaattgc caccagtoga tatgaaggat 300  
 tcttggttgc gctgctaaag ccttgaaggg tactggggga atattgtttg tctttggnaa 360  
 g 361

<210> 1919  
 <211> 372  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-074-Q1-E1-B3  
 <400> 1919

gttcataact tcataaaaac cagtcgttga gattctgttg ataacatcag tcggatttta 60  
 tatggctctc gatggagtca atcttcttgg tcatgatgct cgtaaataac tgaacaacat 120  
 tgtcttctat gtgtttagtc cttcgcttat tgggaagccg ttagctgata gtgttacata 180  
 cgaaagcttg gtcaaaatgt ggttcatgcc ggtgaatgtt ctgcttacat tcatcattgg 240



ttcattactt ggctggattg ttattgtcat cactaagcct ccttcacacc ttcgtggtct 300  
cattcntggg tgttgctg ctgggaaatt ggggaatatg ccactgatta ataatcccag 360  
ctgtttggta na 372

<210> 1920  
<211> 470  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-C4  
  
<400> 1920

cgntacgcca ccggtcatcg nancccggt cgcaccacg cgccngcca ctgccacagc 60  
atcagtaggt gtagctgtta gtgataatgg agtaagcacg aatgtggtgc agcatgaagc 120  
tacggcagac tctgaggata cagatgctgg ttcgccccaa agaacagatg agagtgaggc 180  
aatgagtga gatgtgaaca aaacaccct aagggtgac tcggatggtg aagatgatga 240  
atcagatgca gaacatcccg ggaaagtctc cattggtaag aagctttgga ctttcttgac 300  
gacgtagccc aatctttgat cagagaatgt agctaattct cttctgttga caatattagt 360  
gttttgcttc ttgatcttta gtagctactt aggagggtt gtgttaattt cgtttgata 420  
ttttttcacc acaatgtaat gttttccttc caaccttcca acacttaant 470

<210> 1921  
<211> 459  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-C7  
  
<400> 1921

ntcggtagcg aacacgaatt cncgggncga cccacgcgtc cncggacgagc tgggaggagc 60  
cgtgggctcg agagactgga ttgtgtctt aacaatccag agatccgtct ctatttcccc 120  
aatgcttca aactgaatca agaagccaga gatctcatca tgcacacttg tatagatgag 180  
atgtttccan gtacacaagt gcctgcctgc ttcattcatc gagctacttc tggggattcc 240  
ttgaaaatca agttgaacga gtcgcctctt cctacaacct tgagatttaa ggcttgatc 300

atgcttggtta aggttaatga agaactgatg agttatgatc agacaccgat gatcggttgac 360  
attgtcatca gggacgaaca taatgatctc aaanaaaaga tatatccaag catatatcca 420  
agcatatata cacttttaac agagcatata tacacattt 459

<210> 1922  
<211> 432  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-C8  
<400> 1922

acgcgtccaa aactgctggg ggaaaagcta gcgccaacag ctctactgcc aaaaatcaaa 60  
agaaggatca acccatcacc aagaagggtc aaggaagagg gaagggaaaa gcttcttcaa 120  
agaaaagttt ttcacgtat atgatgggtg actccaacat tctatggtct gacattcagg 180  
aatttgccaa agcgaaatat gagtttgagt tgcccgagct atcaagaact accgctaaaa 240  
aagtatctgt tcttcgtaat ctttgccaaa aggttcgtgt cagtattgct gctcgcaaat 300  
acgacttcag tgcaaacacg ccttttgaga cgtcagatat tttggatctt cggcccgtaa 360  
ttaagcactc cgtcctgta tgctctgang ctaaagatct tgttgagatg gggaaagtcc 420  
aactggctga ag 432

<210> 1923  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-D11  
<400> 1923

gtattgttga gcaagtcgt gatggcagca ccattcgggt ttatcttctt ccggaatttc 60  
agtttgttca agtatgtt gctggactcc aggtccatc gatgggaagg agacaatcaa 120  
cacaagaagc tgcgttgat cctgatgta cagcaacttc gaatggagat gcttctgctg 180  
agacgcgtgg cctctaaca acagctcaga gacttgctgc ctcagcagca tcgtctgttg 240  
aggtttcttc tgatccgttt gcaatggaag ccaagtactt tactgagctt cgtgtgctta 300

atagagatgt tcgtattggt cttgaaggcg ttgacaagtt caacaatctg attgggtcag 360  
tatactattc cgatggggat acagttaaag acttggggtt ggancctgggt taaa 414

<210> 1924  
<211> 428  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-D3  
  
<400> 1924

acgcgtccan ggacgcgtgg gtcggaatct tcttattcgc catggatgct ctttctcagg 60  
cgatcagttc cgggatctcc gttccttaca agaacaattc ttcttctctc gttccttctc 120  
acggactcac ctcttaatc ctccgaaat cgagatctcc ggtgaatccc tcatcagcat 180  
ctcgcgtctc ggtgcgagct tcggagattc aacacagcaa aacctcagct tcatcgatcg 240  
atctcagcga ttcagattgg aaattaaagt atgagaaaga ttcgagcaa cgattcagca 300  
tacctcacat cactgatgtc ttacctgatg ctgaagccat tcgttcaacg ttttgtctta 360  
agatgaggtc tccgacggaa gattttgttg gtggttacct tctgaatgaa gaatgggatg 420  
gattcatt 428

<210> 1925  
<211> 423  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-D6  
  
<400> 1925

tccatggatg atctaccaac ccatgtaaca gcaccaacta tactaaggtc agtatctaca 60  
cgaataggtc ttttcatgat antcctatcc actgaagcag tcaccaaaat catcgatctc 120  
gcaactgctgt caccaccaca atgctgtttc agtaaaagca cacataacaa agttatattc 180  
aaatactcag gatgcaaaca aataagaagg caagagccaa aaacaagaac cttgaaggag 240  
atggttccag caagagcgtc aagatcttca accaaattta ccagtacgaa ntctcattcc 300  
aagggattcc tatattgttc tcgaagaaca aaatcagaag aaaacttata gagaattgac 360

gttcggettc gagacggaga tttagccgtc aattttgact gagaagcgtc gtctccggta 420  
gga 423

<210> 1926  
<211> 466  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-D7  
  
<400> 1926

ccgntcggta ccgaacacan attcncgggn cgacccacgc gtccngtaca aactggcaca 60  
agttctgagg atgacttgag gatcaagttt gaggagctca aaggaaagtt ttatggattg 120  
gctgaacaga atgaaatgct ggagcagtc ttgatggaaa ggaatacttt ggttcagaga 180  
tgggaaaaac tcctggaaaa tattgatatc cctccacagc tacactccat ggaagtggaa 240  
aacaagattg aatggcttgc aagtacaatt acagaggcta cacatgaccg ggataatctc 300  
caacagaaga ttgataacct tgaagtctat tgtcaatcag taactactga tttggaagtc 360  
tcacaaaagc aagtangtga tgtcgaggga aatcttcaat catgtgttag tgagaggggtg 420  
aatctttctg aaaggctggg aaaagtttga ttggtgatca tgaaaa 466

<210> 1927  
<211> 460  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-D9  
  
<400> 1927

acgctgccag tgcngtcaa aattaagggt cgacncacgc gtccgcagag atttttatag 60  
tttggtttct ttgacggag aatctcgatt aggttacgat ggtgtttctc tcgattccaa 120  
acgggaagac tttatcgatc gacgtgaacc ctaattcaac caccatctcc gccttcgaac 180  
aattggccca ccaacgtagt gatgttcac aatctttctc tcgttactct ctccgtatgc 240  
gaaaccctag ccgcgtgttt gtagattcaa aggattccga ttcgatctta ttgtccgatc 300  
tcggtgtttc tcgtttctct actgtgatta tccatgtcct gcttttgggt ggtatgcaag 360

cggtccgcc gaagcctcgt cttgatttcc tcaattctaa gcctccgtca aattatgtag 420  
 cgggtttggg tctgtgtgct actgggttta ctactccatc 460

<210> 1928  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-E1

<400> 1928

ntattttcca gggacctgca gagaacaaac tctgttgctg ttaccgtgaa caatcttctc 60  
 cagatgtgat gatagtttgt gtnaaatata ctaagcactt ccatttcaac cttaggtata 120  
 gattaatgat tggggacata tccttatccg taagttttac acaccacca acattccaag 180  
 cttcaccgcg tgtagatata aggcactgtg tatcactttt tgctatatag agaagaggc 240  
 tctagtgtat agcttctgtt cattgctctc ttgcgaaaat aagtccggat atttacataa 300  
 ggtgatgatg ccctgggtgg tctgggagat atcttggtgc agtctgacct tggctccaat 360  
 ctcgaagga gagtaaccac tctttgcaac ctgctctttt ggctgctggc cacctctcct 420  
 gt 422

<210> 1929  
 <211> 506  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-E12

<400> 1929

ctgtttaagt tgnccggtgc ccggtccana aattaacggg gtccgaggcc cgcgttccga 60  
 tacacctnga ttcngttagc aancctgggc cnaaanngna ctnagcttng gcctnanttn 120  
 cnaatggatg gttgatcctn cgcgtttttag ttttggggca agccaagaag aatttggatt 180  
 ccgttcaggg atggggagcc tttgcgttgg gtcacaaaca acctaagcaa atggatatat 240  
 ctgcaagcca acaagagaag acaagctggc ggggtgggatt agacacgctc acctgaaca 300  
 gtctatatga cgatggagcc ttgagagcag cccaacagcc tgcttatggc gtcccagctt 360

ccaatccggt tgaggtccaa gacctgtttg cattttcaga cagtgtttca ccgccttcag 420  
 ccgtnaaciaa cccattcggg ctctaagagc caacctatca tcaacaagag caagcaagcc 480  
 acaagctaca ngttgcaccc aacctt 506

<210> 1930  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-E3  
 <400> 1930

cttataaagt ccaaattctg aagtgcgtgc acggtgcacc acgaatccac gatccagtga 60  
 gcagcagcaa ctccatctcc ggagctctag attcagataa gaacaatggc gattccgatg 120  
 cctactcgcc agctattcat cgacggcgaa tggagagaac ccatcttgaa gaagcgaatc 180  
 ccgatcggtta atccagctac tgaagangtc attggtgata ttcttcgagc tacaacggag 240  
 gacgtggatg ttgctgtcaa cgctgctcga agagcattat caaggaataa agggaaagat 300  
 tgggccaaag cacctggagc tgttcgtgct aagtatttac gtgctattgc tgctaaagta 360  
 aatgaaagaa agacgatctg ggaaaactcg aagcgcttga ttgttggtta accattgg 418

<210> 1931  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-E4  
 <400> 1931

tcccgggncg acccagcgt ccnaaacact ttatcaagag attcacttag ctcttcaggc 60  
 gatgatgctt caagcttcaa tgggtcaatg gtctcttcta gcttcgcttc gccttcagac 120  
 aaaccgaagc ataagtcaat ctctccttac aaattcatat cttctcttat catgaattct 180  
 cctctgagga aatggagagg aagtgagact aagaacaagc ccaaacctca gcctctaatt 240  
 caatgcttca cttacaacga gatttcaaag gccacaaatg attttcacca agggaaatata 300  
 gtaggcatag gaggtactc tgaagtgtac agaggagatt tatgggatgg aagaagaata 360

gcagtgaaga agattagcca aggagaatgg tgacatgaac aanggagaaa gagtttccta 420  
 cgggacttng gatcataagt c 441

<210> 1932  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-E5  
 <400> 1932

aaaagcaaag atcaaagtgc acatttgtgg caatctttga atcacagtca tcattgtcat 60  
 catcaagctc aggggaggta tattcagatg gcacctcttc gtggacttct aattataaca 120  
 gcgcggagga ggagcatgac aacgacttgg actctgtata aattcaaagg cccccataat 180  
 tgtctatggg taccagagcg gacgcgtggg atattcctca agtttgtgaa tgattgtcgg 240  
 caaattggga ttagttgtcc cattgttcct ggaattatgc ctattaataa ctacagaggc 300  
 tttttgcgta tgactgggtt ccgcaagact aaagatacan ttgaagggtga tggctgcctt 360  
 gggagcccta tcaagggata accaaagaan ctgttgaaaa gcctaattggg aattcacctt 420  
 tgga 424

<210> 1933  
 <211> 433  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-E6  
 <400> 1933

accgaggcac anattcgccg gncgaccac ggcgtcnget tgatccagat tcggttctga 60  
 ttggagctgc catggaacgc atcatcggcg gnaagtaaaa gctcggacgg aagatcggcg 120  
 gtggttcggt cggagagatt tttcnancta cgcacgtcaa taccttcgan atcgtagctg 180  
 ttaanatcga naacagtaan aacaaagcat cctcaacttc tctatgange taacctatat 240  
 agaattcttg aaggaggaag tggaattccg cgcataaaat ggtttggagt tgatgggaac 300  
 aganaatgct ttagngatgg atttgctcgg tccaagtctc gaatatcttt tcgtcnactg 360

tgggaggaaa ttctcaccaa agacatctta aggttggctg atcaaatgcn aacaagaatn 420  
aaatttgtac att 433

<210> 1934  
<211> 456  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-C12  
  
<400> 1934

cggtgccggt caaaaattca ngggtcgacn cacgcgtccg nccacgcgtc cgaattgatg 60  
aacgcaaaga taatgctgat atgacaagt atcttacggg aacaattgaa tctgctgatt 120  
cagcaatccc aaatagtccc actgaagatg ctgctccagg tgaagttgaa ccgttggatc 180  
ataatgctct ttttgatcca acttctgata ttaccaactt tattgatttc agtgggtgat 240  
catcttggtc aggaaatata caagacctta aaaccgaaac cgggaatgta tctttgaaag 300  
aggataagaa agttactgac atggcagagg acgttggtcac agcagatata gaaactgaat 360  
cgaatgaagc ccgtgttggt gttggggcag aatctccagc tgctgcaact gattgttcaa 420  
aagagacttc tgatgcaact ttgggatctg aagaaa 456

<210> 1935  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-069-Q1-E1-H12  
  
<400> 1935

acgcgtccga acaagagaaa atcgctcgtc gtcggtattc aagcgtctgt gactccgata 60  
aagcctnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nctttggag ttgtcgtatc 120  
tctaaatcgg aggcaatttg agtgagataa agacaaagga aggaatcaag tggactaccg 180  
aagcgagtgt tgagcttttt cagagacgga tttggagatt tcttgttgat atcgtctgct 240  
tagaggctta tttggtacca gatgaaacag atctgagctt cggaaggtat ggcgagttcg 300  
gaggtttcaa tgaaaggtaa tcgtgggagg agataacttc tcttcctctg ggttttaagt 360



gaccctaaag gagactagaa atgtctcccg tcgccggcga agggggcaaa aaa 413

<210> 1936  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-A1  
 <400> 1936

gacaaagcct ttttctctat atatatatat atatctctct atctttcgcc attttggttt 60  
 ttgcttctct ctgtgtgtga gtgattatga tgatgggatt atctttctaa agctttttgt 120  
 tttcctgaaa aattaaataa gaaaactttt atgggtcttc ntctctctctg tgttgagatt 180  
 gagagaccaa taaatgctgt tagtaatggt tagttgagat gagaggtaaa aagatcccg 240  
 agtccgagga gtgtttggtt tcttgcaaaa ggatagtgag gcaaaacatg ggtttggttt 300  
 ctcttgctct ctttcattca tcccttttcc attaatgggc tctccctctt ccaacaccaa 360  
 cctcttcttt tattaactaa caaacatttt ctgccttttt ctctctctct cactctct 419

<210> 1937  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-A11  
 <400> 1937

cgcgtccgnt gctgaattct tcacgatttt ccaactggga ccgctccact tagacggaaa 60  
 cacttccaaa gctgcagaca aatgggtgtc tatagacgag tatttggtatg gctacttggt 120  
 ggaaaggaag aacagatatg ggaaaaacat ggaagtgatc gatgtcgga tgcaagagat 180  
 aaaaacttac ttcaggtctt tcttggtgtc ttcagtactt ctgatgttca tgttctgttc 240  
 caggatagcg aagagcaagt atagtagaaa ctccatgcct gtcttgccat gaaactaatg 300  
 gaggaagctc tcatttaatt aacccttgta agtttagta tcttttggtt gcgaaacttg 360  
 tattctcat tttagaaatg ttgtgtctca tgaaaaagac aacataattc cttggatttg 420  
 tgaaanaatc 430

<210> 1938  
 <211> 477  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-A3  
  
 <400> 1938

```

cgccaggggt cnaacaatcc cngngncgac ccacgcgtcc gaggcntcat cgactaatga   60
agtcataaaa gaaacgtgct cacggcggtta agcttcaaga aaccaaccat ggtccctcca  120
accaacaaca agaaccatct ccaacacgca actatcactc cccctggac ttcaacctac  180
aaaaaccaag ctctctctaa aaagacaggt tgttggttaag acaagagtcc aanagtataa  240
gatttggtcc aaatctaagt aagaagtcaa gagttagtcg gtttgaagaa gaacaagaaa  300
ggattcaaga tttgggcact gagtagaagt acaggaaact ctccaaaagt tgatctttca  360
gataagaact cttctagtga tttggatgtc cttgatgggt tggatttcgc tttccaatan  420
gcgcaacacg ttcggtttga gaancggttt ttgatcaaaa tcctccggta attaaaa   477
  
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<210> 1939  
 <211> 443  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-A5  
  
 <400> 1939

```

aaacagtggc cggccgacgc acgcgncnc agacacactc gcgaaaatgg cggctcactc   60
ttcttgcaac tttgctttga cgaatccgat catctcacia atcgattctt tctctaagaa  120
gaaactatct gttccattat acttcttctc tacaagaaaa gcattgacga atccttggtt  180
aggcgttggt gattcatccc tctctctcac ttctccagtc tccgctctac aaactaatcg  240
cccaagaaga atccataaat ccgccatctc cagcttacc accgcgaatc cagatttagt  300
ggtttctgan gcganaaagc ccaaattggtc atggagggca attanatcat ttgcaatggg  360
anagcttgaa gctaggaagc tcangtatcc aantactgga actgaaagca cntctcaang  420
ggtattttgg attgaaggaa cna                                           443
  
```

<210> 1940  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-A6

<400> 1940

```

ggtttaactc gaaatttcat tttatggatt cttttgtcat ctctcttcac ggcgattcaa 60
ctaacgtcgt ctcaacgcaa cactccacca ccacgctcta aagacgccga tctctgcaac 120
ggcgtgttcg tttcctacac ttacttaacc ggtaccaaga ttaaaccaaa cgacacgaag 180
aaccagccgt accggttcga atcagagatc acggtcctaa acaacggccg cgacgagctt 240
aaatcgtggc aagtctttgt taaattcgcc caccgcgaga ttcttgtttc agcgaccaac 300
gctgtttctt ctgacggttc tagcctcccg gctagcgttg agaacgggac aatcttcgcc 360
ggggtttcca tcggcggatt tgaagacggc gatnatgacg gncggcgacg ttactcaa 418
  
```

<210> 1941  
 <211> 466  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-A9

<400> 1941

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agntcgtgct aacggttcan agggtcgagn ggcgcgtccg cccacgcntc cgcggaacgcg 60
tggggatcag tttgacgtag tccctccaga gaatgcttct gtaagttcat atgggaagaa 120
gtctgttgta gaggaacgtg tcaagaagaa gcccacacct gtgaagatta gtccttggac 180
tctagctcgt ctcaatgcag aagaagtttc aaaagcagca gcagaagcaa gaaagaaatc 240
caaaataatc cagcctgtgg cgagacggga aaatccattt gttggcttag aagcaagcag 300
cagcttcgga agcagtggcc gtagaatgtt cccaacaaaa tatgaagggtg ttaataataa 360
cggaagcag cgaaggcaat caaagcgcac acggttacca gcaagaacta cctctagaac 420
cgctgatgaa tggtcaagac aaaagcaaca atgggggact caacta 466
  
```

<210> 1942

<211> 466  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-B10  
  
 <400> 1942  
  
 tacgcttccn gtgccggtcc aaaattcaan gggctcgacnc acgcgtccgg cgacggcaac 60  
 gaagacggcg aagaatacgg cgggacacga ggattcccaa cgatcagatt ctttgacatt 120  
 ccacggcggc ttagatatca gcttctccga tccgctctct ctgtttgtgt aaatcatggt 180  
 gatcgcggt gcttctctt tttccctcgg tccatctcat tgccatcaat cttacacgga 240  
 tgagttctct tctccatac cttacaaaag aaccagcaat gcaagaaatc gtgtgtttga 300  
 tggatgtggc tctgctaate tctctgtttt aagttccaga tgcaagattc ctttttttgg 360  
 atcagcattt catgtatcat ccggtggaca tgatctcggc ctacgaaag tttcggttgc 420  
 tgctgattat tctgattcgg ttcctgattc atctttctat ggataa 466

<210> 1943  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-B3  
  
 <400> 1943  
  
 ngtcattagc tatattctag tttaatggtt atcatcaaga aaatctgaaa tcaaattttt 60  
 ggattgtaat ccatggctgc tcttggtaaa ggacataaaa cagctttcat ctcttgaatg 120  
 gcttcgtctc ttttgcaatt tttgagttag ccaagtgtc aaggagata cataatacct 180  
 gaagatgtcc aaggcaagtg atgccgtcag agaaccattg gtggacaaga atatggctgg 240  
 atnaaaacca agaccagccg tggatggttt atctcagcac attcgttgcg gtctgtggtt 300  
 cttttgcgtn cggttcttgt gcgggatact cttcacctgc tcangctgca attangaatg 360  
 acctttcatt gactaatagc tgagttttca ctctttgggt ccttactaac ttttggcgc 419

<210> 1944  
 <211> 422  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-070-Q1-E1-B4

<400> 1944

```

ttctctctct tatctcgtct acttgatctc tctactctct ttctctctta gctacttctc 60
tcccttacgt ctccaaggag atagattgac aaattctggt cacaaaggaa aaaagttcct 120
ctgcatacgt ctctctctct atgttcttca tttatatgac ttgaataaca agtaaaggat 180
gaggcagaat ctgaaaaaag tagcacagat caaagtagac gaatctaaga agctatttcc 240
ttatgtcttc cgggttaaaa cttcttgtgg gaattgcgct aagagatcga agcctaagct 300
tatctatctt cttatcttct ctcttatctc aagttgcttt gtctttgctc ctgagctcct 360
ctgtttccct taacctctg ctccggttct tcatcgaatc ctcaanttaa gagaattgaa 420
at 422

```

<210> 1945

<211> 469

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-070-Q1-E1-B6

<400> 1945

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ttctangccg tcggtaccga acanaaatc ncggnncgac ccacgcgtcc gntcgtcctc 60
taaattgtcn aaaatgctgg ctangctcgc tgcgaagcgt cttctcgaga tccgtcaagt 120
tttccgtcaa ccaacctctc agtgactcgc tagcttatcg acggccttaa actaccatct 180
ggattctcct gataacaaac ccgatcttcc atgggagttt tcagaggcta accaatctaa 240
ggttaaggag attctctctt actatccatc caattacaag cagtcgcgag ttattcctct 300
cctagatctt gcacaacagc agaatggagg ctggctccct gtttcagcaa tgaatgcggt 360
tgctaaagtt atagaagttg cccctatccg tgtttatgag gttgcaacat ttacncaat 420
gttcaacaga gcaaagggtt ggaaaatata aaccttcnag tttgtggca 469

```

<210> 1946

<211> 447

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-070-Q1-E1-B7

<400> 1946

ttgccgncgg taccgaacac naattcncgg gncgaccac gcgtccngaa naaactaaaa 60  
acaaaaatgg cattgcaaaa gtttcctctc atggggctgc ttttgctcct aaccatcctc 120  
gtctctgtga caacagcggg tgatgatcct gtttgcccg cgacttccaa gctaagccga 180  
gcaagtttcc ctaatggggt tttgtttggc acgggtactg ctgcgtttca ggtcgaaggt 240  
gcaattaatg aaacttgctg tggaccggct ctatgggata tctactgtag aagaaatcca 300  
gagagatgta ntggcgacca cgccgatgtg gccgttgatt tcttccatcg ttataangaa 360  
gatattcaag ctaatgaaga atctaagaca cagatgcatt cagactctca atcgcatggg 420  
caagaatatt tctcatggg agaaaang 447

<210> 1947

<211> 448

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-070-Q1-E1-B9

<400> 1947

atagggctga cgnacgcgtc cnaccgann aagctgttct acacctccaa catgccaatc 60  
attctccagt ctgctctcgt ctcaaacctc tacttcatct ctgagcttct ctacaggaaa 120  
ttcagtggaa atttctttgt gaacctattg ggacagtgga aagaatcaga gtncagtgga 180  
caatctatac canttagtgg tcttgcatat ttgatcacag ctccggcaag ttttgccgat 240  
atggnanget catccattcc atgctctgtt ctatatcgtc ttcagtgtca ctgcttgtgc 300  
cctattctca aaaacatgga ttgaagtctc cgggtcttct gctagagatg tagctaanca 360  
ngctaaagga acaacaaatg gtgatgccgg gacacangag agtccaactt aaaaaaggg 420  
agctgnaccn ggtacatccc aaaaagcg 448

<210> 1948

<211> 417

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-070-Q1-E1-C1

<400> 1948

aatcgtgagg cctataatTT ccttcatct ccaaaatcat ttctcctcaa atttcttctt 60

tagaagatta aaaatcttct ctctaattct tccactcttt cataaatatt ttctaatttc 120

ttctaccttg gtgtctgatt ctagcaccaa accattttct cctaccaaaa tctgggtttc 180

gatcaatttt aggtcttttg attcctactt gtctaattcg cttgcaattt caaagatgac 240

agttgttgga gatgttgctc caattccaag gaggaacagt tctacttgct ctaatgatat 300

cgctgctccg ttattaccaa gagtgcctg gagatgaagt tgctcatgat gaattcaatg 360

gagcttcntt tagtggcgcc ggttttaacc tcggccacga ctataantgg gtggctg 417

<210> 1949

<211> 613

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-069-Q1-E1-H1

<400> 1949

cgttacttgc cnggcccggT ccanaattaa cgggtcgacg cacgcgtccg gaaaaaacac 60

acacacatct tagagagatg aaagagacta attttggcga agaaaacgcg cgttctggta 120

gttgggtggga cgggatcatt ggggaggagg attgtaaagt gcgtgtttgg ctgagggaca 180

cgagacttat gttctccaag cggccggaga ttggagtgga catcgagaag gtgcagctac 240

ttctttcttt caaaagactc ggcgcacatc ttgtggaagg ctcatctctc gatcaccaaa 300

gccttgtctc tgccgtaaag caagtgcgac tggttgtctc cgccatgtcc ggtgtccact 360

tcgcaccca caacatcccc gttcagctca agctcgtcgc agccatcaa gagggcggta 420

acgtcaagcg tttcttacca tcagaatttg gaaggctctac taggaatcat ccacagaant 480

aaacatttgt naaaaatgga atacaaatgc aattaaggcc nccgggattt nccganaaat 540

actctccgt gccttgtttt gccccaanac ttcggnngn aaatttaccn caaatgggg 600

aaactttggt ncc 613

<210> 1950  
 <211> 444  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-069-Q1-E1-F12  
  
 <400> 1950

```

accggtcana gaattcccg gccgaccac gcgtcagaaa gcccaaaacc cagaagaaca   60
aaaaatctct cttttgaaaa ttctcctttt gcaaatacatt caagtgaagc acaannnnnn 120
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnagacttt ttgcgtttac ctgaaaaact 180
gttttgatct tttctgataa ctcttctcag atgagaagnn nnnnnnnnnn nnnnnnnnnn 240
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnngagt atcaagttga tggagcattt 300
gttggnacat atgggataaa ttatggaagg atagctgaca acataccatc tccggagaaa 360
gtagttttac ttctaaagca agctaaaatt cggaatgtgc gtatatacga tgtagatnac 420
actgttcctt gaagctttta agtg                                           444
  
```

<210> 1951  
 <211> 620  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-069-Q1-E1-F5  
  
 <400> 1951

```

tacaagtcca ngaaattccc gggtcgaccc acngcgtccg aaaaaattga caaacaata   60
taaaatccct atgaacaact ctagagaaga ccagtgggta caacactatg agcaacaaaa 120
tattcaagag attactccgt gcttcaacgc cattaacatc gcgtcatcgt cgggatcttc 180
ccttgagac ggtggtgccg cggcacatga agctgctgga aggagatcta gggcttcgag 240
gagagccata ccaacaaccc tcctaaacgc aaaccctagc aatttcgag ccctagtcca 300
gaaatttacc ggacgttctg ccggagggtga atccaaccgc agaaaaggtc cagtgacttt 360
ggatttcggg tctccacta caatctccaa agaagctatc tttccaagtc tcaagcgatc 420
gaagtaataa caatcttgat catgtgcaca aactgantac gacacgtcac tgacttgcca 480
  
```



ngtacaagaa tcaatgatgt cgtatcaatt taggcnaagg aaactaactc nggcgggtta 540  
aaagcaaccg gggtacnatg attcaagatt tttccgangg gaatacnccc ggggaataag 600  
taacctatga tgaaaagttt 620

<210> 1952  
<211> 605  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-069-Q1-E1-F6  
<400> 1952

ggcgncggta caaatcatga aattcccggg tcgaccacg gcgtccgaac gaaactagcc 60  
agagagatga cgagcaagat tctagttatc ggagctacag gtctcatcgg aaaagtcctc 120  
gtagaggaaa gcgccaagtc tggccacgcc cactttcgct ctggttagag aagcctctct 180  
ctccgatccc gttaaggccc aactcgttga gagattcaaa gatctcggcg ttaccatact 240  
ctacggaagt ttaagtgata aagagagctt agtgaaggcg attaaacaag tcgatgtcgt 300  
gatatcagct gttggtcggg ttcaaactga aattcttaat caaaccaata tcatcgatgc 360  
catcaaagaa tctggaaatg ttaagagatt cttaccgtcg gaatttggtta atgacgtgga 420  
tcgtacggta gccattgagc caacgccnta annacacaaa gccataaagg gtgcattaan 480  
ctgcaagata cttaactatg tcgtccaagg ttgcttgcaa ggcctttggt cncttgtttg 540  
ggccaatgcc aanttgggaa nccanattnn cccccnaan anacaaaggt ttcaaaccga 600  
atnga 605

<210> 1953  
<211> 626  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-069-Q1-E1-G1  
<400> 1953

gaactgttta cggtgcccgg gntcgggtcca aaattaacgg gtcgacgcnc gcgtccgnnn 60  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nngaattcga gaaccagatc 120

tactaattac ctgagagaaa aaagatctgc tctgtttgtc ttgaaacaga cagaagtcaa 180  
 caaatctttc atttgttttt tagcaaatca aagaaatggc cggaggggttc gtcagtcaaa 240  
 cgccgggtgt tcggaactac aattacaaac tgacaccgaa agtgtttgtg acatgtttca 300  
 tcgggtgcttt tgggtggtctc atcttcggat acgatctcgg gatctcagga ggggtaacct 360  
 caatggagcc attcttggaa gagttcttcc ottacgtcta caagaagatg aagagcgcac 420  
 atgagaacga agtactgtcg atttgatagt cagcttctat cctcactctc ctcaagtggc 480  
 gcttgggtct cctcttgctc caacattaca aagttttcgg aaggaaatgg tcnatgttcc 540  
 gcggtggntt caccttctc aaccggttcc ggctttcaaa gggntttgcc caaanaatc 600  
 gcnaaggcct tccaattgg gcccg 626

<210> 1954  
 <211> 463  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-069-Q1-E1-G10  
 <400> 1954

ctttncgcgg gcaggtaccg gtcanagaat tcccgggncg acccacgcgt cnaaccacg 60  
 cgctcgannn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnna ccaaataatgg 180  
 gaacctgctt ctccagctca actaaatcca cggctgagat ctctcccttt gacctcgtcg 240  
 tcaaacctcc tctctcttcc gccgccgcca ccgnaccanc aaccaacga atccccaccg 300  
 cgaaaacaga aacatcgacg gtgagcttca ccgcaacagt gagattatac ggaccaccta 360  
 acagtctagt gacgtcgtat ctccgtttcg ctcttctcca caagaaagtt ccgctccgtt 420  
 tcgttccatc gggaggaaca aaaaccgaag aattcaaggt cgg 463

<210> 1955  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-069-Q1-E1-G12

<400> 1955

anaagtcaag aattcccggg cgcaccacg cgtccggttc gttctctggc ggccgatccc 60  
gtcgctcgct accttttaag atattttttt tatctaata acctgaaatt gtaattaggc 120  
atataattgg ggattatttg ctgaaattct catttctaga tcgaaaaaag cgaataattc 180  
gttttcattt gattcttgcc taatcttagg gtgtctttat ttatctacca aaagaatgtc 240  
taattatcga ggagatgatg ctgagtacat ggaagacgta gatgatgaga tggaagatgt 300  
tgaagatgat atggatgagg agtttcgtgg tgatgatctt ggtgcttcag attctgacgt 360  
tgaagaattt gactattcga acaataaagt agctgatacc acggctgagc aagctcggaa 420  
agggaaaaga tatccaaggg ga 442

<210> 1956

<211> 630

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-069-Q1-E1-G3

<400> 1956

ntgtttacct tgcccggtgc ggtecnaaaa ttnacgggtc gacgcacgcg tcccggtgat 60  
tctacctcaa aattaatata cacattcatt aaagaaaaac accaggacga gattactttt 120  
ggcgaaaagt ccaaattagg acgagggggg atgactgcaa aaagttaaag ctgctgttaa 180  
tgcagcttat ggtggcggtc ctgttatcat aaccagtgga tatgcagctg agaatataag 240  
taagtcctta gaggactgcg tgttggtacc ctgttccatc aagatgctca tttatgggct 300  
ccggctgtag atactacttc tcgtgacatg gcagttgctg caagggaaaag ctcaagaaaag 360  
cttcaggcct tatcttcaga agataggaaa caaattctac acgacattgc caatgccctt 420  
gaagtaaatt agaaaacaat taaagctgag aatgatttaa tttgcgcaca cagantggta 480  
tgaaatcttg gtancccnct aatttatgaa acccggggaa aatttccaag cccttgcaan 540  
cttcccggtt ngccagctan ccnaaattg gaaganttca aatanggcc ttttttttaa 600  
ancaaaanct ccagggttgc cagntggttc 630

<210> 1957

<211> 621

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-069-Q1-E1-G4  
  
 <400> 1957  
  
 tacgttgccc ggnccggtcc aaaataangg gncgaggcac gcgtccggnc cacgcgtccg 60  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnact gtaataaatc taaggaaaca aaaaaacgtt acgaaagaaa aagcattaaa 180  
 aagaaaagct ttagagagaa aaaaaacaca gtcacacacc tcttttcaat tattcaattt 240  
 agcttttttc cgatcctggt catcacacng cactgcgtct tctttgccaa gttcttcttc 300  
 atctttcgtc gttttcttag tgccacccaa agatcttcgt gcaggttcat tggcgtttgt 360  
 agtacataaa ttttcctga cacacagaaa aagaggattt gactgttata caatgtcaac 420  
 aaaagtgttg gatcctgcat ttcaaggagc tgggcagAAC aggacgaacg ggaatganat 480  
 ttggggantc ccgtacaaaa gtccggagca tggaaagttc aaangggag atacttacat 540  
 tgggcttgca gacaacacaa gaattaaang gggggtgcnt aaattggntt gganataaaa 600  
 ntttcggga ttngggaaaa g 621

<210> 1958  
 <211> 542  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-069-Q1-E1-G5  
  
 <400> 1958  
  
 acgcgtccga nactatcgag taataccag tagtcaatta tctggttttt gatcgattcc 60  
 atcaaaattt gatctttttt cttctctgaa gcgaaagctc tcgcctttta cattttcgcc 120  
 aattgtgcaa atttactggt ccacaagttt tcaaatgaa ggcatcttc aaccgtagag 180  
 ttgtcgtcga ctcatcttcg cgtctacca agctgctcgc gaatccaact actcattctc 240  
 acctgaatcg tcaaaacttc acttctctct ataaaccaa ccagagccgc cattttcgaa 300  
 cacactatct tcttcaagc cgtcgtctc ctcccgtag ccgctttgac cttctcaag 360  
 ctatggcgat cggagaaaa tctgtgggtt ttcgcgagcg ctttagggac aagctgtaat 420

tggaatccgt ggaaccaaatt tgggtcatgg gtcccanttc ccaaaaagggt gttcgaattc 480  
 caagaggntt tccgggggtt tcaaaaggct tgggtgggaaa cattgggctt caaagggtta 540  
 nc 542

<210> 1959  
 <211> 594  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-069-Q1-E1-G6  
 <400> 1959

nggcccgggtc caaaattaac gggncaggc ccacgcacgc cntccngga cgcgtgggcg 60  
 gacgcgtggg gtagaggtag ctctcagtt ccagaaccag gagatgaagt tcatgagact 120  
 gacaaaagg aacactatcc tcttcttccc tgattcagtt caagagggtca tgaatttcag 180  
 gacagtcaat ggggtcatgtg aaggaattga agatcccgat catcccttca gtagtgaaag 240  
 gcctcgattc ggctcatcc cggcagggtc aactgatgca atagttatgt gcaccacagg 300  
 agctcgtgat cctgtaacat cagcgtgca tatcattcta ggtagaaagc tcttccttga 360  
 tgcaatgcag gttgtgcggt ggaaaacagc atcaacctcg acgattgaac cttatattcg 420  
 ttatgcagcc tcatcgctg gatacggntt agggatgcat tcaaagtga atacggggat 480  
 ggtccaaacg cctatgacta gttggaacta agataatcct gaagcacaag nttagacaag 540  
 caaaggtaaa gtttngaaga anctggatcc agnnaatttc naaagctttc ccta 594

<210> 1960  
 <211> 556  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-069-Q1-E1-G8  
 <400> 1960

aattcccggg togaccacg acgtccggag gaaagccaaa gagagagaga gagaacaaa 60  
 aatggcgta cagagttgct acaatggaat ccacgtata aaaagggttc atcctctgat 120  
 tcaactcttc acatttcac gattctcttc atcttctctt ccattcaa atcacattcc 180

ctcttcacaa caacagcttc gtattcgctc atcttcttcg ctttctgata ttggaaatcg 240  
caggcattgt tcgtctactc gaggatttca attttggtca tacaagagaa gcgaagcagc 300  
gtcgccgttc aagacgaggt acagagaaaa cgaagaaaga agaagatatg acgattaaac 360  
cggcggttcg tatttccgac gggaatctaa tcatcaaaaa cgggacgatt ctaaccggtg 420  
taccagatnt gtacacactc agacgaactg gccggtaaag gatcttcgct ggagctgtat 480  
tttacaagga agagagtaac acatcgtacc gatttggtna gccttcgcaa tttcccggtt 540  
taagtctggn ttccgg 556

<210> 1961  
<211> 444  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-069-Q1-E1-F10  
<400> 1961

aggtaccngt caaagaattc ccgggcccgc ccacgcgtcc gtgaaagctt tgttttgagt 60  
tattttcaaa gctaataaaa ggagtgcttt tatatttgat ctaagtattc aaatctttaa 120  
agttgtggct aaacttcagt ttgtgtttgc ttttgtttat caagattggt cttagacttt 180  
ttcgagttaa aaaacttggtg tgttgagtc atcatcgtga tcaatggaaa ataaagttga 240  
gaaggagatt acttggtgta ttaaaaattt ctcttctctg caatctgcaa caatatattc 300  
tgatatattc gttgttggtg gctgcagatg gcgttgctag gccttcccca agggatataa 360  
taaggctgat tatcttctc tgtatctcga cgttctgat aaagaatctt tacctattgg 420  
atgaagaagc cacacaaan tttc 444

<210> 1962  
<211> 460  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-G1  
<400> 1962

caagaattca ngggctgacc cacgcgtccn aataaatggc gttacaaagg caactcctga 60

agagagctac ttccgatatc tatcaccgcc gtgcgatctc tctcctccgt actgatttct 120  
ctactttctcc ttcgattgct gatgctccgc cgcacattcc gccgttcggt caccagccac 180  
ggccgtataa aggtccttcc gccgatgagg ttttacagaa acggaagaag tttctcggac 240  
cttctctttt ccaactactac cagaagcctc ttaacatcgt tgaagggaag atgcagtact 300  
tgtatgatga gagtgggtang gcgatatctg gatgcctttg ctggaatagt cactgtgtcg 360  
tgccgtcact gccatccggg atattcctaa tgcgattacg ggaacagagc aagctacttc 420  
aacacgcgac tactaattac ctgcatcatg ccaatggggg 460

<210> 1963  
<211> 401  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-G11  
<400> 1963

acgcgtccgc ccacgcntcn gcggacgcgt ggggagagat catgagggtca ccggtgcaac 60  
tccaacacgg ctcanacgcc annaacgggt tccacacgct gcagcctcan gatcagaccg 120  
atgggtccgat caanagagtg tgtctcacgc gcggtatgca tgtccctgaa cacgttgcca 180  
tgcaccacac ncacgacggt ggtccggacc agtgttgctc ctccggtgggtg cagatgatcc 240  
angcgcgcc tgantccgtg tgggtctctg tgcggcggtt cgataatccg aangtttaca 300  
agaacttcan cagacagtgc cgtatcgctc aaggcgatgg actanacgtc ggcgatctcc 360  
gggangtcat ggtgggtccc tgggactccc nggggtctca a 401

<210> 1964  
<211> 483  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-G3  
<400> 1964

cggtgccgtc aaagaattca ngggtcgacc cacgcgtccn ggagaaaatc gctcgtcgtc 60  
ggtattcaag cntctgtgac tccgataaag cctanactan cnaggacngc gagagagaga 120

nananagagc tttggagttg tcgtatctct aaatcggagg caatttgagt gagataaaga 180  
 caaacgaagg aatcaagtgg actaccgaag cgagttttga gctttttcag anacggattt 240  
 ggngatttcc tgttgatata gtctgcttag aggcttattt ggtaccagat gaaacanatc 300  
 tgagcttcgg aaggtatggc gaattcggan ggttcaatga aangtaatcn ttggcggaga 360  
 taacttctcc tctcctggg tttagtgaac cctaangng actanaaaat gtcccccgtc 420  
 gccggncgaa ggggcaanaa aaattaattc tacccgattt cggctgccng ctgaaacgtt 480  
 gct 483

<210> 1965  
 <211> 454  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-G4  
 <400> 1965

ggtcaaaggg ncgacgcacg cgtccaccca cgcgtccggg gcgctaaatg ataaatcttc 60  
 tacatcaaac ttgaaaattg aagctcttgt cttcaccaaa ttagtcttgg natcacatgc 120  
 nctcctgtt tttcacctt acattaangc tctttcaagt cctgttttag ctgctgttgg 180  
 tgaacgctat tataaggtga ctgctgatgc attaagggtt tgtggggaac ttgtcagagt 240  
 antacgcca agtactgcgg gaatgggctt tgattttaaa ccgtttggtc atccaatcta 300  
 caatgcgata atgtcccgt tgacaaatca agatcaggac caaggaggtc aaggagtgtg 360  
 ctatcacctg catgggtcnt gtgatttcaa catttggtga tcaactgagg gcaaaagtta 420  
 ccttcaatgc cttcctgtgc ttgttgatcg aaag 454

<210> 1966  
 <211> 482  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-G5  
 <400> 1966

aactcccagc gnaccgtaac ggtcaciaat tcccgggncg acccagcgt ccncgatttg 60



cttcngcttt cttcgatttg cttctgcttt cancgcggtt caggtcactc ttttcncagc 120  
 catggcgant cttttcangg aaaccgtcgt ggggttttatg atagtgatgt acatttttga 180  
 gacgtanttg gatctgacgc aactcactgc tctcaagctt ccaactcncc cgaaaacctt 240  
 ggntgggtga attagccaag agaagtttga tgaaatcacg agcatacagt cntgacaaaa 300  
 gctantttca ctttgttcat gannttttga actatactta tgggactctg caattttgtt 360  
 ctttgngatc nngccttggt tttgggaana atgtctggaa ctgttttacc ganggttggg 420  
 ccntgatcca gagaatgaaa tactgcataa cncctttcaat cntgganggg tggttaaagac 480  
 at 482

<210> 1967  
 <211> 479  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-H1  
 <400> 1967

ttaccncca ggtagcggtc aagaattcac ggggacaaat ctttctttct ctttatttta 60  
 tcttaaaatt tcttatctga tttcttctc ttgagctaaa tttgttaact tctgggtatt 120  
 caaaaagatc tcattttttc ttctagctct aaattttcag ggagtttctt tcttcttctt 180  
 ttgaagaccc tttgtcatga gctaattttt atcctctgtg tgttgagaaa gatctcattt 240  
 tttagcttta ggattgaggg agtttcgatt tttacttagc acttttctt ggaagtgatt 300  
 tggtggaact catggtgatt ggtttcttcc taagggttat tagagattga gttctggatt 360  
 tttcacgcgc cttgggattt gatctaattg actcnccttt ttcangtcnt aatccggnn 420  
 aaaattttta atttgagat cnttttgtaa aaaagggtgca aagttccgga nttttgtaa 479

<210> 1968  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-H2  
 <400> 1968

acgcgtccgg tggtttgttt gggaagcttg tggactagtc ggtgtatattt ttacatattt 60  
cacagttttc acagtacagt ttggctttat nagaattggg atatgggaag aacttctaca 120  
aggatcaata tgggggttata ttcattccttt taatattctc cttcaatgta tttatgatca 180  
ttgcaagtca tttaaaatgt atgacaaccg agcctggagt cctcccacga agattatgac 240  
gagttggata gttagaaatt accaccggga actaagttta gctcttaact aaattcaaaa 300  
ttctttactt taagaggagg atgattcgaa tacttaataa aatcaaagtt aagatatatc 360  
tgttganaca tangcttcca gccaatatgg aaataatatt aangagc 407

<210> 1969  
<211> 502  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-H3  
<400> 1969

aactgtttac gccgnccggt nccggtccaa agaattcacg gggctcgaccc acgcctcccc 60  
gactttttga nggataatcc ggcccaaacc aaaacattag gcaantaatn actgagggng 120  
aacaagaacc tcatacatca agttgggtca aaagaggggg aggctgacaa tggacgagga 180  
ggatgaacaa ccaacacaga agatcanatt ggggcatgcc agcaacacaa tggatcagca 240  
tttacagtgc tcacagacca atgaaacaac gatatcatta taatgttact gatacaaggc 300  
ttgcacaaca cattgaaaaa ngaaatgang atgggttatt tatcagcagt gtggcttctt 360  
gcacggatct ctgggctttg atcatggatg caagaagtgg ctttacggat caagtttanc 420  
aagtttatca ccaagccttt ctccacaang gaatgggatt atggaacaat ggggaaaaag 480  
aattactata ttacagcagt gg 502

<210> 1970  
<211> 434  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-H4  
<400> 1970

canaacctgt atcatgttga tggagtcctt tagcatactg ttatctgggc tggaccgcaa 60  
 ctgccttgct gttgttctct cacaaaatgt taagcataga gccaaaacta ttgcacaagg 120  
 atggaatcca ctgctggaat ctcttgacat ggatgcttgc aatggtaatt ctttggaggc 180  
 tcatgcattc ctgcaactgc tggccacttt tgctattgtt gctgatttta aagaagatga 240  
 actcttaaag ctgatcccca tgggttcacg tcgccgtcan gcagctgagc tctgcccggt 300  
 cacttggatt aatctgaaaa aatgcctggg tgtgattgaa ggttcctcgt gaacagtgga 360  
 aaacagattt gatgccggtt aacnttggca tttgcgtttg aactcacaga acagttctca 420  
 acctgtcccc atta 434

<210> 1971  
 <211> 480  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-H5  
 <400> 1971

ancggtcaaa gaattcccgg gncgaccac gcgtccnaac cgatccaaat tccgagaaaag 60  
 acaaccaa at tttccttttc ctctgcaaaa atgtttattg agagcttcaa agttgagagc 120  
 ccgaacgtga agtacacaga gaatgagatt cactctgtgt acgattacga gacgacggag 180  
 gttgttcatt agaagaccgt caatggcact taccaatgga ttgtgaagcc aaagactgtc 240  
 aaatacgatt tcaaaaccga tattcgtgtc cccaaattag gggttatgcc ntgtgggttt 300  
 gggaagaaac aatgggtnaa ctctcaacc gcctgggtgg tgattgcnaa ccaaagaagg 360  
 gatccccgtt gggcaacgaa aggacaaaan tgcaacaagc gaaattactt ccgggtcact 420  
 aaactcaaag cttcaacnaa ttcgtgtccg gatcttttaa cggtgaaaaa gatncaatgc 480

<210> 1972  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-068-Q1-E1-A3  
 <400> 1972

aagattgggt gtaccagcc tegtagggt gctgcaatgt ctgttgccaa gagagtagct 60  
gaggagtttg gttgtcggtt aggagaggag gtagggtagt cgattcggtt tgaagattgt 120  
actggaccgg atacagtgat caagtacatg actgatggta tgcttctcag ggaaattctg 180  
atagatgaaa acctctctca gtactctgta atcatgcttg atgaagctca cgagcggaca 240  
atccacactg atgtgctggt tggctcttcta aagaagctga tgaaacgtag actcgacctt 300  
cgtctgatag tcacgtctgc cacattggat gcagagaagt tctctgggta cttctttaac 360  
tgcaacattt ttaccattcc tggaagaaca tttctgttg agatactata tac 413

<210> 1973  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-068-Q1-E1-A6  
<400> 1973

aaagtgaatg ggctaaacaa agctcgggct attctcacca cggccaggaa gaagaatcct 60  
gggggggctg agctatgggt agctgctatt cgcgctgaac tgaggcatga caacaagaga 120  
gaagcagagc acttgatgtc aaaggctctg caagactgtc ccaagagtgg tatectctgg 180  
gctgcggaca ttgagatggc gccacgtcct cgacggaaaa caaagagtat tgatgctatg 240  
aagaagtgtg atcgcgaccc tcatgtcacc atagctgttg ccaagctctt ttggcaagac 300  
aagaaggtgg agaaagccaa gagcatgggt tgaacgtgct gttaccgttg gccagatat 360  
tggcgatttc tgggcgttgt tctacaaatt tgaacttcaa catggctctg a 411

<210> 1974  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-068-Q1-E1-B1  
<400> 1974

ccatggctat tgggtctcac aggttgtctc agcaagggtc catcaccaag cgtatgactg 60  
ccattgaaga gatggcagga atggatgtcc tgtgcagtga caaaaccggg acactaacc 120  
tcaacaaatt gagtgtggac aaaaacttgg tcgaggtttt ctgcaagggt gtggagaaag 180

atcaagtcct attatttgca gctatggctt ccaggggtga gaaccaggat gccattgatg 240  
cagccatggt tgggatgctt gctgatccaa aggaggctag agctggaatc aggggaagttc 300  
acttccttcc attcaaccct gtggataaga gaactgcttt gacttacatt gacggcagtg 360  
gtaactggca caagagtcag taaaggtgct cctgagcaaa ttctccgaac ttgcca 416

<210> 1975  
<211> 409  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-068-Q1-E1-B10  
<400> 1975

gtggcgagat cttggatcat ctctgcttgg ccgcttgggc ggtggtcgtc ggcacgtca 60  
ctaattaatt attgtgatta agaaaaaatg cttaaattgag ttctgctgtc ttctgcttct 120  
gcttaagctt ctctcatcatt tagctccaga ggcggagctt tcttctctct ctgtggacga 180  
ccatggcggc ggacgacggc gaccccaacta aattcgctgc aatctacgac tcctcctctc 240  
cgtcacaccc tcttctctct aaaccctcca cgctcgctct cgattctccg cgtcgaagtg 300  
atcccgaatc cgaccaact cagtttcttc agatctccta caattttggc ccaagaactt 360  
tcaaggacat ccttttcta ctctctctcg atcttctcgt actctccaa 409

<210> 1976  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-F8  
<400> 1976

aggctgatca ttgggttcag cagattgatg aagtcgatgc ncaggaactg gatttcccag 60  
gaggcaaagt cggttacaca tcggagatga aattcatacc ggaatcatct tcaaggagga 120  
ttccatgtta ccgggttctt gacgaagacg gacgaatcat ccccgatagc gattttattc 180  
cggtgagtga gaaactcgct gttagaatgt acgaacaaat ggcgacgcta caagtaatgg 240  
atcacatctt ctacgaagct caacgtcaag gaagaatata tttttatctt acttccgctg 300  
gagaagaagc cattaacatc gcttcagcag ctgctcctca gtctgacga cgtcgtttta 360

cctcangtac cgagaacctg gagttctttt gtggcgtggc ttcacgttgg aggagttag 419

<210> 1977  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-C3  
 <400> 1977

gcgtcnacgg acacgtgggg cctgagtttc aatccagatg gaaagactgt gctttgtgga 60  
 ttgcaagaaa gtctcaagat tttctcatgg gagccaatta gatgtcatga tggagtggat 120  
 gttggatggt caagattgtc agatatgaat gttcacgagg gaaagcttct tggttgctca 180  
 tacaatcaga gttgtgtagg cgtgtggggt gtagatctct cgcgactga gccatgtatg 240  
 gctggagaca ctgcgcaatc aaatgggtcat ccagagaaac gatcttgctc aggaagagat 300  
 ccagtagttc tcaatgataa taactcaaag acagttctcg ggaagctgtc cgtttcccaa 360  
 aatgtagatc cttttattga aggaaacaaa gtctccaagg aagattatcn gttcccaana 420  
 actcctgatt ctttcga 437

<210> 1978  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-C9  
 <400> 1978

ggggggacgt tgnccctga gccaanggt aagcctcncg ggccgacca cgcgtaagg 60  
 acaatgcaag agaagagaac acacaaggaa tagtgaacat ggttctccgt tgctgtgcaa 120  
 acgccttact tggtgccctt gactatctca acaagttcac catcaacttt gctgcaataa 180  
 caggggaagc gtattgcacc tctggaaaa tgacttacta gctgttaata cgcaacctac 240  
 tgtcagctgt atttgtcgaa acggtttcca ccagaatcct aaccgggaat agtctttgtc 300  
 ctgtcagccg catatgcatt cgcnacatgg gctgttctga ggaggagtga gcagcctgng 360  
 tanagattcg tacgtggtgg ctgtactggg gttgggtggt actgattggg atattggctt 420

tcctttgtac atgttcn

437

<210> 1979  
<211> 458  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-D11  
  
<400> 1979

cgttgacatg cntcgcgctc cgaagcgggc tcaaantccc gggcccgacc cacgcgtcaa 60  
cagagatddd tatagtttgg tttctttgac cggagaatct cgattagggt acgatgggtgt 120  
ttctctcgat tccaaacggg aagactttat cgatcgacgt gaaccctaata tcaaccacca 180  
tctccgcctt cgaacanttg gccaccaaac gtagtgatgt tccacaatct ttccttcggt 240  
actctctccg tatgcgaaac cctagccgcg tgtttgtaga ttcaaaggat tccgattcga 300  
tcttattgtc cgatctcggg gtttctcggt tctctactgt gattatccat gtcttgcttt 360  
tggttggtat gcaagcgggt ccgcgaagc ctgctcttga tttcctcaat tctaagcctc 420  
cgtcaaatta tgtagnccggg tttgggggtcc tgggggna 458

<210> 1980  
<211> 440  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-D12  
  
<400> 1980

tcccgcccg acccacgcgt caaagtgaga agctcgctgt tactcatcgt cgagcctctc 60  
gatcttcaat tcccttttga attgaagaag cagatctctt gctctctcta tttgacgaac 120  
aagaccgaca ntaatgttgc ctttaangtt aagacgacga gtccgaaaaa gtattgtgtt 180  
aggcctaata ctggagttgt tctcccgagg tctacttgcg aagttcttgt gancatgcaa 240  
gctcaaaagg aagctccttc cgatatgcag tgcaaggaca agtttctgct tcaagggtgtg 300  
atagctagtc ctggtgtcac agccaaggaa gttactcctg agatgtttag canagacgct 360  
gggacatcga gttgaggaaa nnaaaactga naagttacta ngttggctcc aacaannncg 420

aacattnacc gggtttacaa

440

<210> 1981  
<211> 442  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-D4  
  
<400> 1981

acgcacgcgt ccnaaagctc ttctcttgtc tgatttcttc tgaatttccc ctctaagtcc 60  
cnccanttcn tctcaattag ctanaaagtc aattccttta caancgttct gaanaatttg 120  
gtcaaangtt ttggctttna gtaccaat tttaatcctg gcgataaact gaattgaaaa 180  
cggttccaaa agttacatca cctgaaaaca acagtgcctt tgantgtgtt ggtggtttgg 240  
agtgcctgat aagtttaatc acggnccctg aaanggggtc ctgcttatca tcatctggag 300  
gtggangaag cagcagatta tctccatggc tctcctcatg ttcttgggtc ctgggaagac 360  
gangaagcct cccanataag agacctgggg tcctggtagt tcttcgttng anaacaccga 420  
tgaaccacnt catcataaga tc 442

<210> 1982  
<211> 473  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-D5  
  
<400> 1982

aaactctcag cgntccgtaa cggtcaccaa attcccgggc cgacccangc gtchnaataaa 60  
atcatnaatt acaaacaaaa atggttttgc aaaagcttcc tctcattggg ctgcttttgc 120  
tcctgaccat cgtcgctctt ccagcaaagt cngatggacc tgtttgcccg ccgtcgaaca 180  
aactaagccg ggcaagtttc cctgaanggt ttttatttgg cacgggggtac tgcggcatac 240  
caggtcnaag gtgcgattaa tgaaacttgt cgtggaccaa ccttatggga catctactgt 300  
agaagatata naagagaggt gcaataacna taacggggga tgtnnccgtt ganttcctcc 360  
atccgttata aggggaagata tccaactaaa tgangaatct aaacacagac ncctttanaa 420



tgtcaancgc atgggcaann aatatttcct ccatgggaaa anaggaaaaa agg 473

<210> 1983  
<211> 478  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-E1  
  
<400> 1983

ttacgcantc ggtggccgtc anagaattaa agggtcgacg cacgcgtccn cccacngtc 60  
cgcttcattg cctcttaagc cccaattatg acaacaaacc tcacgcgtac tgtcttcttc 120  
gtcttggtct tcttcattca ccatgaaagc tcttctcttt cttcttacct tttctctcat 180  
cctcccaaac ccaatctcag ccattgattt catcttcaac ggcttcaatg actcatcatc 240  
taatgtctcc ctcttcggga tcgcaacaat cgaatcaaaa atcctaactt taacaaacca 300  
aacatcgttt gcaactggtc gtgctctata caacaagaac catccgtaca aaagatccaa 360  
tcacatcctc tggtttacct ttctctangt tcttctatct tcaanatggn tcccntacaa 420  
agaaaacacn tcctgggtca cgggaatcgt cntcctcttt ggancatcac tgggatca 478

<210> 1984  
<211> 466  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-E3  
  
<400> 1984

gtgcccgtca nagaattcaa ngggncgacg cacgcgtcca agcgtctctc cggactcaca 60  
cctcatcgaa atttgccat ctcatctggc ttcttcccct cggcggttg ntaaccatca 120  
ntanttctcg cgccggcttc gantggaaca atatggatcc tcgtcaattc naacacaccg 180  
ttgttgctga taatganatt cacagcattg ttatgtcata tcttctgcac aactgcttca 240  
acgaaactgc ggactcactt gcttcttcca ctggagttaa gcancctgca attgatcgtg 300  
ataacatgga gagaagaana caaataatac attttatact gganaggaag gcgttgaacg 360  
gttttgaact aactgaacaa ctagcacaag acttgcttga gaaaaacaag gatttgcaat 420

tcgattttcn atgccttcat tttgtggagc taatctgtgc tgggaa

466

<210> 1985  
<211> 472  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-E5  
  
<400> 1985

cagcgnccag taacgggtcan agaattcccg ggnaagaca aactcacnag agtaaacata 60  
cgcaacctgt cgtgtaagta aaaacaattt gatagtgatc tctctatggt tgggtggagga 120  
agagggccta tgggtggcgg cggaggtatg ttacgcgccg ccggtcgtgc gatgacgagg 180  
accggtgtag ccaacgggtg tattcaagat ccctttgctt ctccatcatc atcgccacg 240  
tcgtctccgg ctggaaacgc ctctgtttcg catgtccaga aacagagatc ttcttcttct 300  
gggtcgaata atctgacgta ttccgcggct tctgggttgt tgttgaatct tccggtggct 360  
gcaacctccg ggatggagcg gcggcggctc ttttccctt gttaattctg gangttatga 420  
tgattttgag tgggtttctg angaaagaag atgattcccc tgtttggctc cg 472

<210> 1986  
<211> 454  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-E6  
  
<400> 1986

agtaacggtc anagaattcc cgggncgacc cacgcgtcnn cggacgcgtg ggccgacgcg 60  
tgggctgacn cntgggcgga cgcntgggcc atgcttggag ctcttatgaa aagtangcat 120  
gggggaaaga tgagcttcag cctcggacaa aagatggcac tgatagcttt ggtggccttg 180  
gagcaactat ggtagattct ttanatacac tctatataat gggcttagat gagcagtttc 240  
aaaaagccag agagtgggtt gcaagctcat tggatttcga caacgattat gacgccagta 300  
tgtntgagac aaccataaga gttgtaagct gacttcntaa gtgcgtatga tcnttctggg 360  
gacaaaaatg ttcccttgaa aaggctaang atatttgcac ncaggattat tgccatgcag 420

gaataactcca acgggtatac cttacaatan tate

454

<210> 1987  
<211> 447  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-E9  
  
<400> 1987

aggnaccggt caaagaattc ccgggncgac ccacgcgtcc naaaattctc ggccaanaag 60  
tgaagtttcc ggcatcaga ggtgatatgg ataaggagaa ggatcatgaa gtggagtggc 120  
ttgaagctca gaagatagaa ataagcgttg acttattagc tgcagcgaaa caacaccttt 180  
tgttccttga aactgttgat aggaatcgat ggctctacna tggctctgcg cttgaaaaag 240  
ccatctacag gtacaatgct tgttggcttc ctttgcctgt taaatactct gagtcatcat 300  
cggttagtga agggctcttg gtccctcctc ttgattgtga atggatttgg cattgtcaca 360  
ggcttaatcc ggtgaggtat aattctgact gtgagcaatt ttacgggaaa attctcgaca 420  
attcctggag ttccttcctc cggttna 447

<210> 1988  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-067-Q1-E1-F10  
  
<400> 1988

gtttcgagct atcgatttca accaccgatc tcagatctct aaatctccga tggaccgttt 60  
gatttcagat tacttcgaac ggagcatcaa agctctagat gtcngtaacg ccatccgcga 120  
cggtatcgaa cagatccgtc aatgggagaa acttgccgat attgtgatct ctgctttaga 180  
tagtcaccgt ccgatcggag aaggctcagct ccggcgagct aagaaagctc tgattgattt 240  
agcaatcgga atgcttgacg anaaagatca tccttctgga accantctag ctcacgtaa 300  
ccgttcattc ggaagagtca aagacagtca ccaccgttcg attggtcatt tcaagatctc 360  
tttcttggag tgtttcaaag atnaagggtc agcttctaag caatttaca 410

<210> 1989  
 <211> 462  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-F2  
  
 <400> 1989

ngccgtcaca aattcacggg ccgacccacg cgtcnaanag atggtnaatg gntcnatttc 60  
 ctttccaagc antgganatg tgantttctgg aggaacttcn tgggccttta agcanccatc 120  
 tttggaaatt gggaactana aagaggaaaa ngaagtacag acaggcnagc ccaagggagt 180  
 cttgccattg tcttttttcg aggatgagaa atcgganacc tctgacactt tggttcatga 240  
 acatagtttt gtttttagcca gcgattttcc tgtgagagag aaaactaagg ctccaagtcc 300  
 aactgtgtcc atcagtgact taatatccag attatacagt caggtggaan gagaanaatg 360  
 ctgttaatat ttacaaaac tctgcaactg cttctaataa aattaatggn gangatgatt 420  
 catgggaant tcagggcccc aaaatgccca taacagattc at 462

<210> 1990  
 <211> 471  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-C2  
  
 <400> 1990

cggtgccggt caaagaatta acgggncgac ccacgcgtcc ngcttagatg ctttgacatg 60  
 gggaaattga ctctcagcct tcanggetct gatcattgcc aattcttaac gacggtacca 120  
 tcatgacaat ctcaaangac agagttnagc catctccac acctgatagc tggnaactta 180  
 aagaaatfff tgctactgga gtcgttctag gangctacca ggccatcatg actgttattt 240  
 tcntctgggc ggcgcacaag actgactfff tctcggacac attcgggtgtg aggtccatta 300  
 ngggacaata accacgagct aatgggttgc ggtgtactta caagttagta tcattagtca 360  
 agctctgata ttcgncacaa natcaacgag ttgggtcntt tgttgaacgt cctggaagca 420  
 ttgctgatga atgnttcccn cattggcaca actgatttgc tantttgatt g 471

<210> 1991  
 <211> 464  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-F4  
  
 <400> 1991

tgcgncgctc ataaattcaa gggccgacgc acgcgtcnac tcagcaatga ttgggangag 60  
 catttggtcg tgaagcattt ctctgttgaa ggacagcttg agttcaaagc tatectcttt 120  
 gttcccaaga gagtccttt tgatctcttt gacactaatg aagaagcnca acaacatcan 180  
 ngctctatgt ccgtcgtgct ttcacatgag acaantgtga agacatcctc cctgagtacc 240  
 tcggatttgt gaaaggtatt gtcgactctg aagatcttcc tctcaacatc tcgaganaga 300  
 cattgcagca gaacaagatc ctccanggtca tccgcangaa ccttgtgaag aagtgccttg 360  
 agctcttctt tgagattgct gagaacaagg aagactacna caagttctac taggctttct 420  
 ctaagaancc tgaagctcgg tatccatgaa ggactcccaa aaca 464

<210> 1992  
 <211> 443  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-066-Q1-E1-H12  
  
 <400> 1992

tcccgggtcg acccgacgca ctctcccgcg ctgtcaacgc tgggcgtgag tgagatctaa 60  
 caatcggtag cgaattttgt aaattttgtt ccggttttga agtctcaatc tcggggttcc 120  
 ggttttagca actacttctt ctgacatttc agctgttcta gttgatcttt atatacttta 180  
 tatgatctgg gattttgaag agtttttagg gaggaaccaa aatttctgag agagaaaaat 240  
 gaagttatcg aactgcgttt tgatcttctt tctaagtaac acattctcct cgatttctgc 300  
 tttccgtctg agtcggagtc aaccaactga agccaatttc aagnaatgct ggtgatgtgt 360  
 tggaagatga tccgtgggaa agactggaaa agtccttggg taagaacctt ccaaagttaa 420  
 antccaccaa gaagaatact tca 443

<210> 1993  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-066-Q1-E1-H2  
  
 <400> 1993

ttatcatcgt atatncaacg ttatggtaga gttgaagaag atatcgccaa gagatttatg 60  
 aagcaaattg gngctggttt ggaaattatt catgataatc acattatcca tagagacttg 120  
 aaacctgaga atattttaat tgacggatct ggtgatgatt tgggtgttgaa gattgccgat 180  
 tttagtcttg caagaaaact acatccgggc aagtatcttg aaacagtgtg tggttctccg 240  
 tttacatgg ctccngaagt tcttcagttt cagagataca atganaaggc tgatatntgg 300  
 antgtacgag caatcctttt cgagctactt cacgggtatc caccantccg tggtataaac 360  
 antgttcaag gtccaaagga caatcacatc caagtacaac tctccaant cctctcgggc 420  
 ttaa 424

<210> 1994  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-A10  
  
 <400> 1994

gcgttcgna ccggtctcan attcccgggc cgaccacgc gtcaactccn ctgcacattt 60  
 ctgggttctt ctcttcttat gcnctgtttc ttttaagaca cagaanaaac agtacagagt 120  
 tgagattttc ttaaacaaaa gtgaaaagag aagaaacaag tgacagctca aacggacaaa 180  
 aaccactctt gggcttttct tgcttctgat tctttctctt ctctaactan aagaaaacat 240  
 ctagaagcta aaaaaatgtc ggaaggagta gaagcgatag natcaaatga caacggaaca 300  
 gatcaggtaa acggaaaccg tacngggaaa gataacgaag aacacgangg ntccaccggt 360  
 tctaacctaa gcaatttctt atggcacggt ggctctgtct gggaagcttg gttcanctgc 420  
 gcatctaacc aanttggt 438

<210> 1995  
 <211> 468  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-A2  
  
 <400> 1995

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gtgccgtca naaattcacg gggncgacnc acgcgtccnc actttcttct tctttgatca   60
tatcatatTT atcttcacta caaaaaaac aagtaaaata aagccaatct tcttaaatat  120
ctccagaaga tctatcagca tttacgtatt caggctctcc aatttcttct cacaaagaaa  180
aaggaagaaa aaaaagaagt tgtgagagca aaaaaaaat ggcagtggat aaagtgattg  240
tgaagcagag gaacattata ttggttgga ttccaattga tgaaagtggc gtagaggttt  300
taaaatgggc acttgaagaa gttgcaaac atggagattg tgttggtgtt gtccatgttt  360
gttttactta ttaccgtgcc ttgaaaagca agtcatcgct ggatcggtac ttaaaaccat  420
acattgaatt ctgctcaaca aagaagattg agctcaaagg agaagtgt                468
  
```

<210> 1996  
 <211> 465  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-A4  
  
 <400> 1996

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ggtgnccgtc atgaattaac gggccgacgc acgcgtccaa gtaaanttac aggtaatgta   60
tttatgtaca tatagaatTT ttagataagc tcaaaaagct ggtttgTTta gtgaataggg  120
aaagttttgg gtcgtcgatg aatgtgtcat tttctcttat cccaaatttg ctcgatcata  180
cccaataatt ggatggcttt ctttcaacaa tcgggtttttc cttctatttc cccacatgta  240
ttatatatat atctcatata tttctttaat aattataatg tttagttgga aattctatcc  300
agattctgtc cacatatatg attcgaatat tatccgaaat taggaacaag tagaatataa  360
atatattatg cataatcatt aacccactgt annnnnnnnnn nnnnnnnnnn nnnnnnnnnn  420
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn ncnaa                465
  
```

<210> 1997  
 <211> 427  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-A7  
  
 <400> 1997

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cacgcgtccg cngacgcgtg gggttanctg canatgtang gaaagaatca acaaanatat   60
aatttatnaa ttggtggaga aataccaagt agcatcaaat ggnctcacgt cttttaaaga  120
cacttcctca atattcacca ttagtaatga ttcttatctc tagtcttagc ataatzgatgg  180
tgtggcaggt atatcggcaa aatcttcata ncganttagg cgcactaaag ttgatgggtca  240
aaataatcag aanacagaa aaagttcana aacagaaaga nttggatgga ttataaaaanc  300
aaattcccta agaattanca tgatntggat tctcatttac canattccaa tanangtaat  360
gataattaat agagaaatcc tangatgtta agttatcaa gagacggtaa ataanccggt  420
tcagcat                                           427
  
```

<210> 1998  
 <211> 465  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-A8  
  
 <400> 1998

```

aanggtcaca gaattcccgg gncgaccac gcgnnnnnnn nnnnnnnnnn nnnnnnnnnn   60
nnnnnnnnnn nnnnnnnga gaattaaaca gagaaatddd ttggtctcag gtttatatca  120
aagatgcaaa acgttcctga agacaaaac aaaatgggtca tagatgataa acttcctcca  180
ttttcatggg aaanaaagtt gaacagtcaa gcaaagactc cttctgagtt caaattgagt  240
naaacgagat cacatgcata tgtttocaa taggctacag attgtggcgt cacagcaaag  300
acgaagccgc caaaagaaag aacttcgatn ttcgatatct tcagaaaaac aacatattac  360
gggagatnac ggtgtccctt taagaggaan tgggtcaaga agcattggaa ngagttacaa  420
agggtgagtt tcagcagttc aagctgttcc caaaaatttg tgagg                                           465
  
```



<210> 1999  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-A9  
  
 <400> 1999

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ggcctccggg ccgacccacg cgtcnnccca cgcgtccgat ggtaaccccg tcgctatcct   60
cagcgatatt gagatttata agcatccaaa ggaagaaagg atagctagaa catgggggtac  120
gacggctcca ggtttgcctt acgtagacga ggcgataact aatgctggaa actgggtcat  180
tggggggtgat cttgaggttc ttgagccagt gaagtacaat gatgggcttg atcgtttcag  240
gctttcgcct gctgagttac gtaaagagtt ggagaagcgt aatgcggtat cggtgtttgc  300
ttccagctg aggaatcctg ttcataatgg tcatgctctt cttatgactg atactcgtag  360
gagacttctt gagatggggtt acaaaaaccc tattcttttg cttcatccgt tangtgggtt  420
taaaanggcg gatgattt                                     438
  
```

<210> 2000  
 <211> 383  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-B11  
  
 <400> 2000

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nacgcgtcaa acccgatcan gctgttctac acctccaaca tgccaatcat tctccagtct   60
gctctcgtct caaacctcta cttcatctct cagcttctct acaggaaatt cagtgggnat  120
ttctttgtga acctattggg acagtggaaa gaatcagagt acagtggaca atctatacca  180
gttagtggtc ttgcatattt gatcacagct cgggcaagtt ttgccgatat ggcagctcat  240
ccattccatg ctctgttcta tatcgtcttc atgctcactg cttgtgccct attctcaaaa  300
acatggattg aagtctccgg gtcttctgct agagatgtn gctangcagct aaaggnacaa  360
cangtggtga tgcccgggac ana                                     383
  
```

<210> 2001  
 <211> 477  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-B12

<400> 2001

gagggaaagt tgaaacgcct acgcgtgtnn ganancggtc tgcaggantc ccgggcccga 60  
 cccacgcgtc aagcgacggc aacgaagacg gcgaagaata cggcggacac gaggattccc 120  
 aacgatcaga ttctttgaca ttccacggcg gcttagatat cagcttctcc gatccgctct 180  
 ctctgtttgt gtaaatacatg gtgatcgagg ntgttccctc tttttccctc ggtccatctc 240  
 attgccatca atcttacacg gatgagttct cttcctccat accttacaaa agaaccaagc 300  
 aatgcaagaa atcgtgtggt tgatggatgt ggctctgcta atctctctgt ttaagtctc 360  
 aagatgcaag attccttttt ttggatcagc atttcatgta tcatccgggt ggacatgatc 420  
 tcggcctcac gaaaagtttc gtttgcgtgt gattaatccg aatcggntcc tggatca 477

<210> 2002  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-B2

<400> 2002

gtgnccgtca aagaattaac gggncgacgc acgcgtccna gtcaccaaca gactggggan 60  
 taaaacatgt taaagggatg cttcnttttg ggacctctg gtactggnaa aanccttatg 120  
 gcacggcaaa ttggnaagat gcttaatgga aaggatccaa agatcggtta tgggcctgan 180  
 gtgctgagca agtttggttg tgagacagaa aagaatgtaa gagacttatt tgctgatgct 240  
 gagcaagacc agaggaccct tggatgatgt aagtgagttg catgtcatta tttttgatga 300  
 agattgatgc tatttgcaag tcangaagtt caaccaagag atggcacang tgtccatgat 360  
 aatattgtaa accagctttt gacaaaagat agatgggtgtg gangccttaa acaatgtttt 420  
 gccgaattgg aatgacaaac agaaaggatt tgccttgatg aagcnccttt aaagg 475

<210> 2003  
 <211> 463  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-B3

<400> 2003

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gttctacgng cgctgtgctc gtcannaatt acagggncga cgnacgcgtc caagttctta 60
taattaacct ttgcaattt gtcttgtgtt tctcacaaca cananacttg taaaagtgtt 120
aaaaaatcaa gatctgaaaa atcttatcac cgcttctagg tttttcagtt ttttttcttc 180
cttttctga tcnaaattaa cttatatctt ttagggtttc acttcttgaa acatttaatc 240
agaatnaatt aacctctcna gggctttcat ggcgaaatcca tgggtggacag gacaagtgaa 300
cctatccggc ctcgaaacna cgccgcctgg ttctctcag ttaaagaann nnnnnnnnnn 360
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnagaagt 420
cgataacanc aacaacgacg acgatagaga caacntgagt tgg 463
```

<210> 2004  
 <211> 447  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-B7

<400> 2004

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tcccgggncg acccacgcgt ccgcccacgc gtccgtgagt ttctacaggt cagattccac 60
ccgcatcatt cagaaatagt tgcgagtgga agtttagatc tcgaggtccg cttatggaat 120
accacaactt ctgaatgcat taagatctca tctattctat cggcctattg cttctatcgc 180
tttccatgct gaggggtgaac tacttgctgt tgcttctggg cataagctgc acatgtggca 240
ctacaatagg agaggagagg gatcatcacc aactgttgta ttgaagacga ggcatcttt 300
gagagctgta cactttcanc ctcatggggc tccattactt ttgaccgcag agtggcaagt 360
gaatgagatt gattcattan attcctcaat gtctagagca acatctatgg gctacntgag 420
gtatccgccc cctggctaatt ttgttca 447
```

<210> 2005  
 <211> 461  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-C1

<400> 2005

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ggcgccgtca agaattcaag ggncgacgca cgcgtccnat tcgaacaaaa aacaaaagaa   60
atgggttatgg agcaagctgg aacgacatcg tattcggtcg tgtcagagtt tgaaggaaca  120
atactgaaga acgcagattc attctcttac ttcattgctcg tagccttcga agcagctggt  180
ctaattcggtt tcgctatctt gttgtttcta tggcccgtaa tcacactcct tgacgttttc  240
agctacaaaa acgcagctct caagctcaag atttttgtag ccaactgttg tctacgtgaa  300
ccggagatcg aatcagtggc tagagccgtt ctgccaaaat tctacatgga cgacgtaagc  360
atggacacgt ggaggggttt cagctcgtgt aagaagaagg tcgtgggtcac gaaaaagcct  420
ccagttatgg tggagaaggt ttgctaangg agcatcttaa a                               461

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<210> 2006  
 <211> 427  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-066-Q1-E1-H10

<400> 2006

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ncangctcnc cttacacgag ccatctctca caatggctct gaaaactgcg tctctatacc   60
agctttctct gctctcaaat ccacttctcc acgcaccagt ggcaccatct ctccccgtcg  120
acgaaacgcc tccacgatca gtcactctct cgcacctctg gttcgtgcag ccgccgtaga  180
ggcaatcgtg acaagttctg attcgtccct gggtgataag tcggtgaaca cgatcagggt  240
tctggcaata gatgcggttg agaaggcgaa atcagggtcat ccagggtctt ctatgggctg  300
tgctccgatg tctcacattt tgtacgatga agtcatgaag tataacccca agaatcctta  360
ctggtttaac cgtgatcggt tccgttctct cctgctggga aatggatgca atggttgcaa  420
ataacnc                                           427

```

<210> 2007  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-065-Q1-E1-D7  
  
 <400> 2007  
  
 acgcgtccgg tttcttaagc gagaacattg tgaaaccgcc atattcgtct tctaaatctt 60  
 gtggagtgtc ccaatggaaa acagtcacaa gatttagaag acgaatatgg cggtttctta 120  
 agcgagaaca ttgtgaaaga tttccgagaa tatgcagatt atgttttcac tgaatacggg 180  
 ggaaaagtga aaaactggat cactttcaac gagccatggg tcttcgctca tgcaggttac 240  
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 gatggacgat caggttatga ggcttatcta agttaagtca caacctctc aacgctcatg 360  
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<210> 2008  
 <211> 385  
 <212> DNA  
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 ggtacgcttt gtctgatcat caatgatgct tataataatc tcatttatac atgatcttgc 180  
 ctctatatat ttgttcatct tagtaatctt cggctctcagc ttccattttc gtctccact 240  
 atgtttctag gattttgtgt tacttttggt agaaaactgc gatttttggtg ctagtgtttg 300  
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<210> 2009  
 <211> 393  
 <212> DNA  
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 <223> unsure at all n locations

<223> Clone ID: LIB22-065-Q1-E1-E11

<400> 2009

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gcacatcatt accgagcttc cttcagttag agttggaatt gtgttttgtg gaaggcaagc 180  
tccaggtgga cataatgtga tctggggtct tttcagagct ctcaaggtgc acaacgcaaa 240  
aagcactttg ctaggatttt tgggtgggtc cganggtcta tttgcacaaa aagactccaa 300  
gagattacag atgatataac ttcagactta caaaaaccaa ggtgggttat gatttgctcg 360  
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<210> 2010

<211> 412

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-065-Q1-E1-E3

<400> 2010

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cacagccgtt atactaatga acccatcttc ctctctcccc actgacaatt acatatacgc 180  
cgtttgttct cgggctaaat tctcccttag ctccgggtac gagacaaatc ttaactccct 240  
cctctcttcc ttggtcacct caaccgcccc aaccggtac gccaaattca cagttccac 300  
cgggaaaccg gaaccaaccg ttaccgtata cggatattac caagtgccgc ggcgacctag 360  
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<210> 2011

<211> 462

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-065-Q1-E1-E4

<400> 2011

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gcttctaggt tcagttgcct ccacgtcgct aagcagggtt ttgtctgaat atttggggaa 240  
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tcgcaagttt caatctgaag cagctagcct cggacgatct atcaccaatac ggtttcttgt 360  
tatttgtctt gatgcaacta gaccttggga ggaacggact tgtgaggaat gatcctcaga 420  
agagattagc catggataac ccttacctgc cgaatggaga tc 462

<210> 2012  
<211> 407  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-065-Q1-E1-E5  
<400> 2012

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ttatttgggg aaatcgagga gtctgtgtac ggagctgagt ttttgccctt ttgatggttg 180  
cagataaggt ctaaaatctt gaaggattca aaaatttccg atgaatacac gttattccaa 240  
tcagccggag ttatcttcta gtaatatcac gatcactatt tcatcgtctg ctttggttaag 300  
ctctcaccg cgaggcgata acagtcattg tgctgtgtct aatgggtcaag agaggtctcc 360  
atcttcgttt tatataaggc tggctatgaa ggtatctaga gctagat 407

<210> 2013  
<211> 445  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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tctagttttc tagatctaaa tatttaaagc ttaaattctcc tctcctttg gtttttgatg 180  
 ttttgctttt ttgtctccgc cattctcagc atcatatctg gttgtatctt tcttggtagg 240  
 tagaagcagt cttcaatcgg ttcttctctg cctcagatta agaaatttcg ccatcgtaaa 300  
 tctagatctt ctccctttct tcaagagacg ttctttgagt ctctattttt ttggatgcgt 360  
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 tgggttttaa cttgttaaaa agaaa 445

<210> 2014  
 <211> 389  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-065-Q1-E1-F10  
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 tctgtgcatt tagctgggaa gtttataagc ctccctcgag atgttcgctt cacgagctta 180  
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 gcatgttctc aggttggtgc tgctgagtct gatgatccag tgctggatag aattgcccgg 300  
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 ttcactgcct tggtgacaaa aagctttga 389

<210> 2015  
 <211> 390  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-065-Q1-E1-F12  
 <400> 2015

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 ttccgcttac gaatgatctt tttctgatgc gtcattttga ttaagtgtgt acttctgcaa 180  
 tggaggcttc tctagctggt atacagaggc ctcaagctgg agcttcgaat acggtttata 240



agagtggccc tctcttcata tcacaaaaag gactaggctg gacatcctgg aagaagcggt 300  
 ggtttatcct taccgaact tctttggtct ttttcaaaaa tgatccaagt gcattaccac 360  
 aaaagggaag tgaaagtaaa ttgaccctg 390

<210> 2016  
 <211> 452  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-065-Q1-E1-F2  
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 tcttaaatct ctogtgaatc ccatttgctt tctctctgct agattctctc ttcttctctt 180  
 caccatttc tgcgtttctc ctttgttctc tcactctggg tcttctcaaa gcctcttctt 240  
 ttttatgccg tgggtgggtgc gtcttcctct tacgcatctc cgttatgtac ctggtttgtt 300  
 gctgcttgca tgcctgtctc tcacggtgga ggagatagcc gtcaggctgt tgctcttcaa 360  
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 gctagcattc angtctctgt cacttcttgt tt 452

<210> 2017  
 <211> 448  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-065-Q1-E1-F3  
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 catcggaggc accgcgtgag atcaagacca ttttcgaaaa gtactcagag aatggagtta 180  
 tgaccgttga tcactctcac aggtttctga tcgatgttca gaaacaagat aaagccacca 240  
 gagaagatgc acagtcaatt atcaattctg catcttctct tcttcacgt aatggctctc 300

atcttgatgc tttcttcaag tacctctttg gtgataataa ccctcctctt gctctccata 360  
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<210> 2018  
 <211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-065-Q1-E1-F5  
 <400> 2018

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 tgggatgcgg atggggaact tttgccatag aagttgtgaa aagaactgga tgcaaataca 180  
 ctggcattac tctttctatt gaacagctta aatatgcaaa agcaaaagtg aaagaagctg 240  
 gacttcaggg tcggattacg tttatgctct gcgattatcg ccaactatct gatgctcgca 300  
 aatatgacag aattatagct tgtgagatga tagaagcggg tggccacgaa gtttatggat 360  
 aagtttttca gttgttgtga agatgcgctt gcagaaaacg gcatttttg 409

<210> 2019  
 <211> 398  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-065-Q1-E1-F6  
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 tcgtccgtcc tttaatccgg tcacgtact tcaaggaggc gccggcgaga gagaagaggg 180  
 agaagaagga gatgaggcta gagatcgacg cgcttttgag ttttattacg atgacggatc 240  
 cggatcgggt cttagaccgc ttccggattc tgtatctgag atcttgatgg gatctggatt 300  
 cgagcgggta cttgaacaag ctaagccaaa tcgaagcgtc ggctactgga attggttagat 360  
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<210> 2020  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-065-Q1-E1-F8  
  
 <400> 2020

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cttgtgtttc tcacaacaca aaaacttgta aaagtgttaa aaaatcaaga tctgaaaaat  180
cttatcacgc cttctaggtt tttcagtttt ttttcttcct tttctgac taaattaact  240
tatatttctt aggggtttcac ttcttgaaac atttaatcag aattaattaa cctctctagg  300
gctttcatgg cgaatccatg gtggacagga caagtgaacc tatccggcct cgaaacgacg  360
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<210> 2021  
 <211> 393  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 2021

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acaaactcct catccactta ctcaaccgtc tcttgctcca ccgcacaatg caccgaagca  180
cgtggcctca cgtgccatc ctctcacca caaccgtccg tctgctcctt caaccaatcc  240
tacggcggag attcatcctt ctctgccagt ctctccaag acacgctaac gttagcccct  300
gacgtcatcc caaatttctc ctctggctgc atcaactccg cctcaggcaa ttctctacca  360
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<210> 2022  
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 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-065-Q1-E1-D6

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atgtgcagag atctcataag ccttccctct tctcctccca caacaactgg cacgtctctc 180  
tccttcgctc tctcccttct tctccccaac cagcaacgct gctctactct tattcacgcg 240  
ccgttcatgg cttctccgct cgtctctccc ctatccaaac cgccgcctc cgccgctatc 300  
cttcagtcac ctccgttata cctgatcaag cgcgtgagat ccacacaact cacacgctg 360  
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<210> 2023

<211> 431

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-065-Q1-E1-A7

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cccgttttta tcccttactg cgcaactttc tttgtgttta ctgactatat gagagctgca 180  
atgagaatct cggctttgtc tgaagctggt gttatatacg ttatgaccca tgactccatt 240  
ggtcttggag aagatggacc aaccaccaa cccatcgaac acttatccag ttcccgctgc 300  
atgcccaata ttatgatgtt ccgtccagct gatgggaacg aaacagccgg tgcatacaaa 360  
atcgctgtca caaacgtaa gacaccttct gtcttagcct tatctaagac aaaagctgcc 420  
tcaacttcca g 431

<210> 2024

<211> 412

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-065-Q1-E1-B1

<400> 2024

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gtcacgccgc tccatgtagc tacctctcg gccgcgtcgc cgagtatgcg acctcttcac 180  
cggcaagctc tgctgcgcca tcctctgctc ctgctaagga tgaggggaaa aagacctatg 240  
attacggtgg caaaggtgcg atcgggcgtg tttgtcaggt catcggtgcc attgtcgatg 300  
tgagattcga ggatcaggaa ggattgcctc cgatcatgac atctcttgag gttcaggatc 360  
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<210> 2025

<211> 389

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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<400> 2025

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tttgggatca tcaatcggtt tttggccaac catgaatatg aatcaagttg cagagtatgt 180  
ggaaactgat ccaactggtc gctatggacg ttttgcagaa attcttggaa ggggagcgat 240  
gaagacagtg taaaaagcaa tcgacgagaa gctgggaata gaagtagcat ggagccaggt 300  
gaagcttaag gaggttctgc gttcctctgt tgatctacag aggctttact ccgaagttca 360  
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<210> 2026

<211> 408

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-065-Q1-E1-B4

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 ccacctcctt cgtttgagat cttgggtcga cttacattct ctgcatcttc cgcaagagtg 300  
 aaggctacag agaggtttga ggcaatatat ccttgctga aggaggtgtc tcttgctggt 360  
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<210> 2027  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-065-Q1-E1-B5  
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 ggacgagaga tccagatcta cttgggctaa tgtggtttcc ggtgaggaag aggatcagaa 180  
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 gaagggcgaa aggcttccca caaggcattc acaatcacat gaggaggacc aggaagagaa 300  
 tacatatgcg gctaaagtga gcgagaaaca agacttctcg gagagccagc aagaggaaaa 360  
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<210> 2028  
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 aatcagcagc agcagcaaca gcctgagcgt aaaaggccag ctcttgcaag tgtaattgtg 180  
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gaaaggtcgt ctccaaaacg aattgaaggt atcgggtggaa ggaatttgca gctacaattc 360  
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<210> 2029  
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<212> DNA  
<213> Arabidopsis thaliana  
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<210> 2030  
<211> 391  
<212> DNA  
<213> Arabidopsis thaliana  
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tgataagcag cagcagcgtt tgcgttcata gccgtgaaac gtttgcttgc gatacaaagg 180  
acgcagcaac agctacactg agattctgcc agctttcagt tcctataccg gagagagtca 240  
gagatttgat cggacggttg acattggccg agaaagtgag cttgttaggg aacactgcgg 300  
cggcgatacc acgtctagga atcaaagggc acgagtgggtg gtcggaggct ttacacggcg 360  
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<210> 2031  
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<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-065-Q1-E1-C2

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tcgctttctg atcttgaaa tcgcaggcat tgttcgtcta ctcgaggatt tcaattttgg 180  
tcatnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn accggcggtt cgtatttccg acgggaatct aatcatcaaa 300  
aaccggacga ttctaaccgg tgtaccagat aatgtcatca cgacgtcagc atcggaagct 360  
gaccggtaga aggagtcttc gtcggagctg tattaacaa ggaagagagt aaacacatcg 420  
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<210> 2032

<211> 449

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-065-Q1-E1-C4

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tcggaatcaa agcttggggt tttaatcctg gtaaagccat gtcacatatg gtgtttcaga 180  
gcgttgtcgc tcccaaacc ttatctctc tcaaaccctg tttacctatc cctcgtccac 240  
tcgttactct gccttgtaag ctccgtcgtg gcttcgttag agcttcttcg tcctcgtttc 300  
ttgtcganga ntcaagtttc aggactccga gcgttgctta cagttacctt ctggagttga 360  
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<210> 2033

<211> 409

<212> DNA



<213> Arabidopsis thaliana

<223> Clone ID: LIB22-065-Q1-E1-C7

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gctgacaatg ggcaactgcg gtactagaga cgaggctgcc gtcttcactc ctcaagctca 180  
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<210> 2034

<211> 406

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-065-Q1-E1-C8

<400> 2034

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catgcttttc ttcaggttga ggctcttggt agggttcctt tctcttcaat ccgcaggcct 180  
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ggctcttggtc tcctccttga agttgatgat atagatcgtt tcttgaggtt taaccaactc 360  
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<210> 2035

<211> 391

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-065-Q1-E1-C9

<400> 2035

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 cttgatctcc atctccatag cttcggtga gattcgtaaa tcagagatcc gatccgatga 180  
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 cgcttccaag atctggcttt ccaacagcaa tcccgatctc gatctctcca aagtgggctt 300  
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<210> 2036  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 agccttgggc ctcaa 435

<210> 2037  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-065-Q1-E1-A3  
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tcgtcaacta tcagcatcca gatgatgcaa accaggctta tttccccaaa ttcgttggtg 240  
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ggcatgcttg tcgacattcg atttacaacg gcgcttgtaa tctcacctta cctatgaagg 360  
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<210> 2038  
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<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-065-Q1-E1-D4

<400> 2038

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cacggagagg aatcagaaga cgtcgtactc gataacagta caaggagtgg tcaacgccga 180  
cgggatcttc accgacgttt gtatcggaaa ccaggatct ctcaccgacg atcagatcct 240  
ggagaaatct tcgctttcac ggcaaagagc ggcgcgtggg atgttacgtg acagctggat 300  
agttggaaac tctgggtttc cggtgactga ttatcttctt gtaccgtaca cgaagacaga 360  
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<210> 2039  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-064-Q1-E1-F5

<400> 2039

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cagagaaggg tgaatattat tcaaacagac caccaactcc attacttgac actattaact 180  
acccaatcca catgaaaaat ctttctgtca aggaactgaa acaactttct gatgagctga 240

gatcagacgt gatctttaat gtgtcgaaaa ccggtggaca tttgggggtca agtcctgggtg 300  
 ttgtggagct tactggggct cttcattaca ttttcaatac tccacaagac aaagattcct 360  
 ttgggatggtt gggcatcagt cntaacccca taaagaatcc taacgggggaa gaa 413

<210> 2040  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-064-Q1-E1-F7  
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 gtggtgattt tcggaagtta gggttttctc ggatctgaag agatcaaate aagattcgaa 180  
 atttagcatt gttgtttgaa atggagtcga gttatgtggt gtttatctta ctttactga 240  
 tcttacttcc gaatcattca ctgtggcttg cttctgctaa tttggaaggt gatgctttgc 300  
 atactttgag ggttactcca agttgatcca aacaatgtct tgcagagctg ggatnctacg 360  
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<210> 2041  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 2041

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 nnnnnnnnnn nnnnnnnntt cggatttgtt ttttcaataa attgactaat tgagtactcg 180  
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 tctgtgactc agagtgaat caatagagcg ggaaaagatt gttgcttttt ttgccatgg 300  
 gagttgatga gctgtctcac ctcaaattct ctcttctgct agaatcatca gcctgcaatg 360

atttgccng ttttaaaten ccaagttnga aagaaaaaag gccctgaaaa ncattggat 419

<210> 2042  
<211> 392  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-064-Q1-E1-G11

<400> 2042

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aacttctaca aggacacgtg tccncaggcc gaanacatcg tcngtnaaca agtcaaactc 180  
ctctacaaac gccacaagaa caccgctttc tcttggtctc gtaacatctt ccatgactgc 240  
gccgttgagt catgtgatgc gtcgcttttg ctggattcna caagaagaga gctaggagag 300  
aaagaacacg acangagctt cggacttaag aaactttaag tacatcnagg anatnaagga 360  
aactctegan aaggantgtc ctgatgttgt ct 392

<210> 2043  
<211> 395  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-064-Q1-E1-G12

<400> 2043

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gaagtattta gataagactg atgctgaagg gaatgagagg cctgagtctn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
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tnagtcagag cangctactg gaattgaacn gggac 395

<210> 2044  
 <211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-064-Q1-E1-G6

<400> 2044

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ttgactcggt ctcttttggga tccttggtga ctcggcgagc ttggcttang agacatggga 180
gggtgtgcctt caacgccgcy aaaaaccggt ggtgatgatg ttccggtggc cgagtacctc 240
attgccactt ttgttgggga gaaatcgttt cctttagcgt ctgatttctg gaacangcta 300
cttgagcttc cgttgagttc tcgctggcct agtgatcggg tncaagcaag cctgtgaacn 360
tttcggacan ngtaatnggn tacgctange cccttgcaaa ggcnaatgg 409
  
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<210> 2045  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-064-Q1-E1-G7

<400> 2045

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ccctattcat cagatgtcaa tcaatcacca aatagaagga ttgtggatcc tgttggactc 180
gggaatgtag cttggaagga gagagttgat ggctggaaaa tgaagcaaga gaagaatact 240
ggtcctgtca gcacgcaggc tgcttctgaa agagtggagt agatattgat gccagcacag 300
atatcctang cagatgaggc tctgctgaat gacgaagcga ggcancctct gtcaagggaa 360
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<210> 2046  
 <211> 399  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-064-Q1-E1-G8

<400> 2046

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 gctgggaaca atggtattcc agtgaggatg cacngttatg agtttggaaa agcaagcggg 180  
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<210> 2047  
 <211> 392  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-064-Q1-E1-G9

<400> 2047

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 tgttgcccag attagctcga gtcgtcactc aaacctcaaa gcttcgatct ttgaccacta 180  
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<210> 2048  
 <211> 397  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-064-Q1-E1-H12

<400> 2048

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accaactccg tcgaatcatt atccagctac ggcgagagat tcgccggcgg gaagatttcg 180

atcgaggtta aggctaattgt agggatgcgg aggggtgttat cggaaagtga tgtgattaga 240

tctgagagaa tgttgaaaag agttggatct aagccttcgc cggcgagaat cccggaggat 300

gatgaagcgg gggaggaaga aattaggttt gcagatggtt gggggtctat gatctccggt 360

ggtttacctg tggaagagaa atgtttcacn ggggtggc 397

<210> 2049

<211> 403

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-064-Q1-E1-H2

<400> 2049

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tgggtgcaaga tcttcacgcc ggngcaatgt tccggaatca accgttttgt ctccgttttc 180

gccgtcccag tctctctttt ccacttcacg tcacaanaca acccttacia aatggacaca 240

atgttcaccc tcgccgacac tttgtccaaa atcttcgtct tcgttttgcg ctctctatgg 300

gccgttttct tcaaagccgg tgggtctgat tggctcatca ctctattctc aatcgtact 360

ctccctaaca ctncggttat gggcatacct ttgcntcaag gca 403

<210> 2050

<211> 463

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-064-Q1-E1-H3

<400> 2050

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atggcaccan tctacttcgc catgttcgtg gcttanggat cggtaaagtg gtgcaagatc 180  
ttcacgccgg cgcaatgttc cggaatcaac cgttttgtct ccgttttcgc cgtcccagtc 240  
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<210> 2051  
<211> 462  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-064-Q1-E1-H4  
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ttatctgtga ctcatcttgt gctaattggag tatggtgctt cagagattca agatgacatt 180  
cctgggtcca atgcttacct tactggacta agtattattg gtggagtcac tctgtttcct 240  
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ttctttaata ggagcttcaa gtgcttttgc cgtggctgct ttgtccttgg nagaagattc 420  
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<210> 2052  
<211> 381  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-064-Q1-E1-H9  
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<210> 2053  
 <211> 394  
 <212> DNA  
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<223> unsure at all n locations  
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<210> 2054  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-064-Q1-E1-F2

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gcaccatctg aagatataat ggatgaagcc ttaagttttg cgcggtatca cttggaaccg 240  
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<210> 2055  
 <211> 517  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-063-Q1-E1-C4  
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 ccgacganag aaaccaanga acaagtnana aangcgttng aagcanaaga atggagctcc 180  
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 ggataanacg gnggagttac ttaaggagaa agatgagatc tgaganagaa ggaggaggaa 360  
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<210> 2056  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-063-Q1-E1-C6  
 <400> 2056

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aagttgaagg cttcccgag atgggctgtc acaggaactc ctattcaaga atgg 414

<210> 2057  
<211> 385  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-063-Q1-E1-C7  
  
<400> 2057

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<210> 2058  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: LIB22-063-Q1-E1-C8  
  
<400> 2058

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<210> 2059  
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<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-063-Q1-E1-C9

<400> 2059

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atagtgataa tgaaagtgat ttggagtctg aagctgactc tgctgacgat tctaattgatt 120  
ctgangatga gttccatgat atgtcagata tgcagtgggg aagatgaaag gaagaagttg 180  
ctccattggt ctgaatgtga caagcttttt catccggact gtgtgggttc tccagttata 240  
gacttaccat ctgaagcgtg gatttgcttt tcttgtaagg aaaagacaga ggagtacatt 300  
caagcaagac gtctttacat tgccgaattg cagaanangt atgaagcanc gcttgaacga 360  
anatcanaga tcatagagat catccgttct ctgaatcgtc caaacaatcc c 411

<210> 2060  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-063-Q1-E1-D1

<400> 2060

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cagctcttct cttcttggtc tcagtttgag agaaacaaaa cttccaata caaccagaga 120  
gtcgacgaag aagaaagaaa ccatgtccca annnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnaaaccca tttccgccac tacanttatt caaaaattca aagaagcccc 240  
acagttttac aattctgcag gattgcccct taatcgatga ctccgagtcc gacgatgacg 300  
tggtcgccaa ancaatcttc tgctcacgtc gaagctgtcc acgtgggcat gacactcgac 360  
gncgcctana ttcgtgggtc antcgccggc tggttctcnc cgtcctccca agaat 415

<210> 2061

<211> 457  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-063-Q1-E1-D3

<400> 2061

caaccgggt cganccacgc gtccgcttaa tccatttttt caaaccactt gcaaaattcg 60  
aatcagatct tctcttcaat cgaaaaaaaa gaaaggattt gctctagatt gttgaatcga 120  
agatgtcgac aagggaagag aatgtttaca tggcgaaatt agccgaacaa gctgaacgtt 180  
acgaanaaat ggttgaattc atggagaaag ttgcgaaaac tgttgatggt gangaacttt 240  
cagttgaaca gaggaatctt ctctctgttg cntacaagaa cgtgattgga gcgaagaaga 300  
gcttcgtggg agaatcattt ctctgattga gcacaataga agagagcanc gggaaccgaa 360  
gatcatgttg ccattatcan aggggttaca ngaggaaagg attgaatccg agcttatcaa 420  
aatcccgatga atggggattt tgaatngtcc ttgaaac 457

<210> 2062  
<211> 400  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-063-Q1-E1-D4

<400> 2062

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agatttgtca aagaggatcg tgtggaatct gaaagttttc aattttcact aaaaatagga 120  
ttagagttaa aaaggaggaa gaagaaatgg ggaaacacaa atctttcaga agcaaagcag 180  
tgcactttgt caccgatnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnggatg aggaagatga gtctaagaga aatcagctag 300  
agtctacaac tgcagagcag cctaaggatt tgggtgacga accaagacac ttcttctttc 360  
tctgcattcc ttggttcact gttatcttca gattccaang 400

<210> 2063  
<211> 428  
<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-063-Q1-E1-D5

<400> 2063

tgcacgcgac tctattatca gcatcggtgc gatactcgtg tccctatcga aatcactatg 60

ggagaactga agaagctggt tgaagagggt aaaataaagt acattgggtt gtctgaagcc 120

tctgcctcaa ctatcagaag agcacatgct gttcacccaa ttactgccgt gcagatagaa 180

tggtccttgt ggacgagaga tgtggaagaa gaaatcattc cgacctgcag ggaacttggg 240

attgggattg ttgcttacag tcctctagga cgaagtttct tcgcatctgg acccaagctt 300

gtttgagaan ctanaanagg gatgacttca gaaaggctct accaaagatt tccangaggg 360

aaaaccttag accacaaaca agantgtttt atgaaaaaat tttgttgcaa attatcggag 420

aaagaaaa 428

<210> 2064

<211> 473

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-063-Q1-E1-D6

<400> 2064

ttagttcgnc cggccggtac cgnccaaga attcccgggc ntcttctcn aaagtttatt 60

ttcttaaact tattacaaaa aacatgatct tcaaaagttg atttaatctc tttttatcca 120

tcttcttctt catttcncaa tancaaactt ttcttttttt gtaagcttaa cataaaccct 180

aatattttcn tgattttttt cangaaaata aaaacataaa gatgcttgaa gttagatcaa 240

tggatatgac tccaaaatca ccagaacccg aatccganac tccgacccgg atccaaccag 300

ctaaaccaat ctctttcagt aacggaatca tcatcacgcc accaccacna ccaccacaac 360

aacancaaag tcacttacag agaatgtctc aagaancacg cggngggcat tgggtggtcac 420

gcgcttgacg gttgcggcga anttatgccg tctccttcgt caacgacttc nga 473

<210> 2065

<211> 410

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-063-Q1-E1-D9

<400> 2065

acttcaaaca cttgagaaaa aagcttttga tttcacatct taatctaaca agtcaaacac 60

ttttcaaacc acaaaattcg tcaaagctct gaaacaaata aacatttttt aatttctccc 120

tttttaatgg aaatctcttc tttccattt ccatacctac aagacgacga gtgttcccat 180

ttccttggtc tatttcaaga catggactct tctccttcta ctttcggatt agaaggtttt 240

aatagcaacg acaataatac taatcaaaaag aaacgcccaa gaaaagacga cgaaggcggc 300

ggtggtggcg gcggaggaac agaagttcta ggagctgtta atggtaataa taaggctgct 360

tttggagata tactcgcgac gcttctgttg ttagacgang gaagccaaac 410

<210> 2066

<211> 401

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-063-Q1-E1-E1

<400> 2066

ctctgcacat ttctgggttc ttctcttctt atgctctgtt tcttttaaga cacagaagaa 60

acagtacaga gttgagattt tcttaaacia aagtgaaaag agaagaaaca agtgacagct 120

caaacggaca aaaaccactc ttgggtcttt cttgcttctg attctttctc ttctctaata 180

gaagaaaaca tctagaagct aaaaaaatgt cggaaggagt agaagcgata gtagcaaatg 240

acaacggaac agatcaggta aacggaaacc gtaccgggaa agataacgaa gaacacgacg 300

gntccaccgg ttctaacctc agcaatttcc tatggnacgg tggctctgtc tgggaagctt 360

ggggtcagct gcgcatctaa ccaagtgggn tcaaagttgt t 401

<210> 2067

<211> 411

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-063-Q1-E1-E10



<400> 2067

nctctgattt ttttcaattc cgatggaggc gggagagcgg cgcaatggcg attcgatgag 60

tcacaatcac cgcgcaccga agaagccacg tctcgctggg ttattaaccg agtcagatat 120

cgactctgag ttcgctcacc accagaccgg tgttgccaga atcaacaacg gtagcttcgg 180

gtgctgtcct ggctccgttc tcgaggcgca acgcgagtg gtagcttcgtt atctccgtca 240

gcctgatgag ttctacttca acggtctccg tcgtggactt ctgcttctc gaactgtgat 300

cagtgcacta atcaacgccg atgatgttga tgaggtctct ctgcttgata acgccaccac 360

tgctgctgct antgttcttc agaaagttgg aaaggtgttt ctcggaagg g 411

<210> 2068

<211> 461

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-063-Q1-E1-E2

<400> 2068

ttgcngggccc ggtccagaat acccgggtcg anccacgcgt ccgtgaangg cttctttttc 60

ctaattctcat tgttgattgg gttctcaagc tcttacagga aaaggagatc ttgaaattt 120

tgcagctgct actccccatt gtgtatggcg ttttagagag tattgttctc tctcagacat 180

atgtncagag tcttgtagct attgctgtcc gtttcattca ggaacctgct cctgggtggat 240

ctgatcttgt tgataactct cgaagagctt atactcgatc tgctctaatt ganatgggtc 300

gctacttggg acttgctgca cccgacacat ttgttgcttc agatttcttt cctcttctc 360

cttcngtaa gcagcatgtg gacctaagga tgtgagctat acgtcaaagg cttatganaa 420

tctgngaana agctnagaaa ntaactctgn cggaagattt t 461

<210> 2069

<211> 395

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-063-Q1-E1-C12

<400> 2069

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 atacctttta ctctaacaag gagatcttcc tccgtgaact catcagtaac tcttctgatg 180  
 ctttggaaca gattagattc gagtccttga cggacaagag caagctcgat ggtcagcctg 240  
 agctcttcat tcacatcatt cccgacaaga ctaacaacac cttgaccatt attgatagtg 300  
 gtattggcat gaccaaggct gatttgggtca acaaccttgg aacaattgca agatctggaa 360  
 ccaangaatt catggaagca ctggctgcng gagct 395

<210> 2070  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-063-Q1-E1-E3  
 <400> 2070

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 agagtgtgcg tgctgcgatt tatcagaaga gagcagctgc agagagtaag cggatgggga 120  
 ttttggaagc ggaaaggaga agagcgaatg cgagattgac tccggtgttt ggtgctgcta 180  
 gttctgtgcg gagtcaaaag gaagctgaga gaaggaaaat gaacgaccgt ttagaagagc 240  
 ggcttcaaag ggcaaagaag ctgaaagcgc aatatatnag gcgaaggaga ggtattggat 300  
 agttgttcat cttcacgatn agaaacantg cgaaagaacc aagtgcacat tggttaagatg 360  
 ttagtaagat gcctgganng angatttgcg aatgcaaga agtcctacnc tttggtcttg 420  
 g 421

<210> 2071  
 <211> 398  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-062-Q1-E1-G12  
 <400> 2071

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cgccctagggg taccgggttcc ggtgggtttt tcagcaccgg aaccggattht ctttggtttta 120  
 gtgtctctag tttcgatttc ttgtgggttt aatgtgatct gaatcctatt ttcttctaac 180  
 gggtttctttt ctaaattctc agatctaaat ctgtaaagtc taaatctttt cctcttccgg 240  
 ttttggttgc ttgttggttc ctctgtctgc aagtttcaat tctggccgtt ccaactatgg 300  
 cagaggcagg tttttttcta accttcaacg cctcagatgc agatctctct ccattgaaga 360  
 tctagatntc cttcctttcc tcttganaa cttgggtct 398

<210> 2072  
 <211> 440  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-062-Q1-E1-G4  
 <400> 2072

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 caaatcctc catcaatgga gaaatacgag aagctcgaaa aggtcgggtga aggaacctat 120  
 ggaaaagtct acaaagcaat ggagaaaacc accggaaaac tctctgctct gaagaaaact 180  
 aggctcgaaa tggacgaaga aggtatacca ccaacggctc tccgtgagat ctctcttctc 240  
 caaatgcttt ctcaatcaat ctacatcgtt cgtctcctct gcgtcgaaca tgttattcaa 300  
 tcgaaagatt cgactgtttc tctctctccc aaatccaatc tctatctcgt ttttgagtat 360  
 ctcgacactg atctcaagaa atttatagat tctcataag aaaaggggct cgaatcctan 420  
 accgcttgag gggtctcttg 440

<210> 2073  
 <211> 379  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-062-Q1-E1-H10  
 <400> 2073

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 aatctgaagg atctttacga attccataat cttcagatcg aaaggtttct atcgattcgt 120

tgggtcaagag gagattgtgc gtgtgattcg tgagcatggg ctgttcgttt tcaggattga 180  
 acgcacttta cgacgccgtc aacgggtggag gtgacgtatg gatcaatgag aatcgattca 240  
 ggatcgtgag gcagctcggc gaaggaggtt tcgcattcgt ctttttggtc aaggaaattg 300  
 tcgccgacgc ttctccgcc gcatccggtg gtggtctaac caaganagtc aaggatccgg 360  
 ctcanctctc cggttgacg 379

<210> 2074  
 <211> 397  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-062-Q1-E1-H11

<400> 2074

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 agcaccatcg aaccattacc aaggaggaat atcgttccac aaatcgaaag ggcaacatat 180  
 ccttaagaac cctctgcttg tggattcgat cgttcagaaa gctggtatca agagtaccga 240  
 tgtgattctc gagatcggtc ccggtactgg gaaacttgac caaagaagct tctagaagct 300  
 ggcaaagaag ttatcgccgt cgnaacttga ctctccgtat ggttctcgaa cttcaacgc 360  
 cgtttttcaa gggaattccc ttctccnaac cgccttg 397

<210> 2075  
 <211> 404  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-062-Q1-E1-H12

<400> 2075

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 cttatcccaa acccttcaaa tcttcaggtc caatctcttc ttctatttgt tttttaatta 180  
 aaaaaatccg gcgaaagggtg aagctcttgg attcgagtgg tggctagtaa tcgatttcgg 240

tagtttagaa gtagtttata ggttttatca agctttcgat ttgatggagc cgcgagtcgg 300  
aaacaagttt cggctcggaa ggaagatcgg gnggtggatt attcggagag atctatcgtg 360  
ggaccaanat ccaaacngaa tgaagaagtg ggcgttaaac gttg 404

<210> 2076  
<211> 445  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-062-Q1-E1-H3  
<400> 2076

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ttcgatcttt aggggttttc ttttancctc ttatcgctaa tctggagctc tatanagact 120  
ataaaggggtt tttgattgat tcgggagctc gagatttgac ttcttttagc tgattcggca 180  
agtttgtatc nagaagggat ccattggtga ggtcaatagt ggttgggtggg ttttagtaat 240  
ggaagacggg gagcttgatt tctccaatca ngaagtgttt tcgagttcgg ngatgggtga 300  
attaccacct agcaattggt cganggatag tttctttgat gggcttttaa gtggnnacga 360  
atgctgcgtg tnccacaca cacacctggt nccccactg ggagcaggnc aanactcaga 420  
ctcacaccgt gntccatgg tccac 445

<210> 2077  
<211> 420  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-062-Q1-E1-H7  
<400> 2077

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ggatcgtcct atgattttta cagtcggtac tttgctccta agttcggagt tgatgaggac 180  
cctgtttgtg gaagtgcaca ttgtgcattg gcacattact ggagcatcaa gatgaataag 240  
tttgatgctc cagtaatgtg gnagtgcaca ttgtgcattg gcacattact ggagcatcaa 300

gatgaataag ttgtatttct tagcctacca agcttcgagt aggagtggga acgataagga 360  
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<210> 2078  
 <211> 451  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-062-Q1-E1-H8

<400> 2078

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 ccaaaaaagc caacgacctc tcaaattcaa gaacgggggt tttgtcttca aaatgaaaag 180  
 tttgcaagag aaaaaggggg agaggagag agtctcagac aataccatat taacaccaa 240  
 gaacgagttt ttggaagcaa aagagaccaa ccacacttac tactggtcag ggccaaaatc 300  
 aaaacccctt acctggaaaa agtatatanc catttttaggt atcaaataa aaattggagt 360  
 ccnctccaca atcctaccct ccgcnccaaa aaccaaccaa ccntggatc cctaacatgn 420  
 cataagccat gtcctctctc ccnaaattgg t 451

<210> 2079  
 <211> 452  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-063-Q1-E1-A12

<400> 2079

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 nnnnnnncta gaaatcgaga gagattggtg gaagattttt caccagattt catgggagaa 180  
 gaagagagtc gaattggaga cgagctttcg attttggttc tcacggcgga gcgactccgt 240  
 gtagctgtgg atgaagctga atcattcaaa acagagtgtg gcgagggttg taaacaagta 300  
 gatcggttg ctcaaatgct tagaacactt gttcgattcg tctctagttc ttctcaacaa 360

gtttatgatc ggccgattcg tagagttatc gtcnatgtga agaagaatct cgagcgtggg 420  
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<210> 2080  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-063-Q1-E1-A2  
 <400> 2080

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 taataactta tgtctattgc cacatcatct ttctcttttt ctacaattac agttaccttc 180  
 cagagagaaa aatattagat ggaatttcct ttgtcgtacc ggcaggaaaa agtgtggcaa 240  
 tcgttggtac tagcggggagc ggcaagtcaa caattcttag gatgctattc agattcttcg 300  
 acacagattc cggaaatata aggattgacg ggcaagatat aaaggaagtg agactaagat 360  
 agcctccgaa gctccatagg agttgtgccg caagatactg ttctcttcaa tgacac 416

<210> 2081  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-063-Q1-E1-B1  
 <400> 2081

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 aaccaagtgg ttgtggagtt gaagattcgc cgtgtaagcc tcattcgacg tttaagacgg 180  
 ttctgtttta tctgtcggtg tatctaatac cgtagggta tgggtggttat cagccgaaca 240  
 tagctacttt tggagctgat cagtttgatg cggaggattc cgttgaagga cactcnaaaa 300  
 tcgcgttttt caagttactt ttacttggnt ctgaatcttg gatcgctctt cncaaatact 360  
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<210> 2082  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-063-Q1-E1-B4  
  
 <400> 2082

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ctcgacnagc acaagccccg ggttgtgctg agcagtttgt aatgcanggc gatgcctcaa  180
gaaggctgcg tcttcagggtt aaccttaaca gccacaagtc agaaactgac agtacacaac  240
ttcaatttat caanaaagan gttaaggaca caacaacnga aactatgacn aaaggatgtg  300
gaaatttcac aatgatcaan gagcaggnc t agtttcanat tcaagaaaat tgcaaccatg  360
ggatgttcat acaganggct tttcagaagt cgggtgtggt accggttgtg tgtgtgaatg  420
t                                                                 421
  
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<210> 2083  
 <211> 345  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-063-Q1-E1-B7  
  
 <400> 2083

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accataagtc tatgtagcca tttggctcag gttcttatgt atataacaaa tgaatcattc  180
tttttgggac taaaccgttg tagtctctgt gtatgttgtg gtaatgtatg cttttggctt  240
ttaggttgta ataagagctt tttagtaaaa gctttatact atggtattct tttcatgatt  300
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<210> 2084  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
 <223> Clone ID: LIB22-062-Q1-E1-F6

<400> 2084

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 tcctgatcga tttcgcgagc tctgcgatta ttttaagtat taggatccga aattagaaat 120  
 ggggtggagag ggagattcaa gtcagccgca gagtgggtgaa ggagaagctg tggctgtgaa 180  
 catcaggtgc tctaattggca cgaaatttag tgtgaagacg agtctcgatt caacggtgga 240  
 gtctttcaaa gagttgggtg ctcagagcag cgatgttcca gctaataag cagcgcttga 300  
 ttacaagggt tcgtatcctc aaggacgac aaactctcct cagctatggg ttgcangctg 360  
 atcacaccat tcatatgggt aaagggctct gcaccttctt cagcaccaac ctccctgctc 420  
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<210> 2085  
 <211> 436  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-063-Q1-E1-C1

<400> 2085

cgggtcgacn cagcgtccg atggcggttct cgagttccat cttctctgtt antcagtttt 60  
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 aaattgcttc tccagatcta tcgcctgctt tgntcgatga tcgccggaag ttcgctcgag 180  
 gtgtaatgtc tctcttgacn aagagtatta aaaaccgtgt atatgcttcg attaacagca 240  
 ttgattcggc cgctactcca tcgtanccga aatcgggnag acgatgacga cgttgttcca 300  
 aacgccaaang gttatgatac accaaggatg gctgaanccc ngaagctact attgtacaag 360  
 cncagttttg ggaaaccgtc gttggggctc ctaattgaca caaangnggg gcgntgaaaa 420  
 gatttgnggg atttgg 436

<210> 2086  
 <211> 455  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-063-Q1-E1-C11  
 <400> 2086  
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 ntttngtgag agagaagaga tctaaaaaaaa tccacaattt tgttcaaatac ttggagttaa 120  
 atgctgaatt ttaggccttg ttgcttanat ttatggctta aagtttcaaa cttttcattg 180  
 gatatgtgag aagaaaatgt caggatctga gacgggttta atggcggcga ccagagaatac 240  
 aatgcaattt acaatggctc tccaccagca gcagcaaacac agtcaagctc aacctcagca 300  
 gtctcaagaa caggccattg tcattcggtg gagacgacgg aactgctctt tacaagcagc 360  
 cgatgagatc agtatcacca ccgcagcagt accaaccctaa ctcagctggt gagaattctg 420  
 tcctntgaaca tgaacttgcc cggangtgag tccgg 455

<210> 2087  
 <211> 371  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-062-Q1-E1-C12  
 <400> 2087

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 cttatccaca ttatgcaaga gtagtttctt gcggaagana gctctcctcc aaatgatata 120  
 gtgtgtttat cttttgttgt gctatccatc ncaatgggta aggagggcag ttgtcacttt 180  
 cattgccgca agtnntgaat gcttaagtgc agtcgactct tatgcnttta ttgccccang 240  
 taatacgctc ttancttagt aggactgnct gcgtcaattg cttctgagga aagtctactt 300  
 tcatgtntga atgccccctg tcacaagggg angtagttta ncggttcccn tgaganaacc 360  
 aaggaaccga g 371

<210> 2088  
 <211> 432  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations

<223> Clone ID: LIB22-062-Q1-E1-C2

<400> 2088

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gagcgatgta aagcatattc tgcaaattag ggacttgaaa tctggttcat tgcttcacca 180  
attacctcta natattgggt cagtatctga tgtttctgct cggcgcaagg acaatacctt 240  
tttctttanc ttactagct ttctcactcc tgggtgtgat ttacaagtgt gacgtagcca 300  
atgaatctcc anaagttaac gtattccggg aggttactgt acccggaatt tgacanggga 360  
agcatttcaa gnnccattcat ggtcnntcta tcccaagtan cngnttgga caagatanac 420  
ctaagtgtta ag 432

<210> 2089

<211> 425

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-062-Q1-E1-C4

<400> 2089

taatcaaaaa tggagtatag gtttcatatc tctcgctttt ctcttcatca cttcctcttc 60  
agctgagttc atcattcaac aggtcacaaa gggcagagga atagagtaca acagttctta 120  
cagtctcgag gagaatcttg gngtgacaag agagttgaga gaagagcgac catcgagtaa 180  
gatagtgaca ataacaagct tctcagtgat taaaggcaga ggagaaccct atgaatcctc 240  
tgtttttgag gctgctgggt acaaattggag attggttttg tacgtgaatg gtaataaaaa 300  
cgacggtgga aatgatcata tttcccttta cgcaaggatc gaagaagacn aactctcttc 360  
cattaggttg ggaagtgaaa tgttgatctc aaaactcntt gtccataatg gggaagctac 420  
acnaa 425

<210> 2090

<211> 426

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-062-Q1-E1-C7

<400> 2090

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ccgatactcg gagaaaggta aagagcatgg ctacgacaaa tataggaaag gaggagaaga 120  
aaagagtcga gatttatgat ctcgaagaga atttagtgat tgatttggct aaattcacag 180  
cagatctctc cgataagttt tgtaaagaga gaggcgcttt caccgctggt gtctccggtg 240  
gctctctcat caaatcactc cggaattac gtagaatctc cttacgttga ttctatagat 300  
tgggcaaggt ggcatttttt ctgggttgac gnagagagtt gttcccaagn aatcacgatg 360  
atagcancta tanactcgct tatgaatant tttctatccc anggtaccaa ttccgcctgg 420  
aaatgt 426

<210> 2091

<211> 477

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-062-Q1-E1-D3

<400> 2091

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acttgtaaac aaggagaaat cgaagcgggt gttatagcca ctggagttca caccttcttt 120  
ggtaaagctg ctcaccttgt ggacagcact aaccaagttg ggcacttcca gaaagttctt 180  
acatccattg gaaacttctg tatctgttct attgctattg gtatagcgat tgaaatactc 240  
gtcatgtacc ctatccaaca ccgaaagtac agagatggaa ttgacaatct cttgggtcctc 300  
ttgatcgggtg gtatcccat tgctatgccc acggtcttgt ctgtngacta tggctatcgg 360  
gtctcacagg ttgtcncanc aagggtgtat caccaaggcg tatgacaggc cattgaagaa 420  
atggcgggaa agggntgtcn tttgcaagtg acaanancgg ggacactaac cctctan 477

<210> 2092

<211> 420

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-062-Q1-E1-D5

<400> 2092

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ttctgggtctt cttctcagca catccgtcgt tgctcgtgga tccttctgtt atggctgcgc 120  
catgtcatat tcgtcgcttg ctcagtcctaa aatcatggaa gaactgggac tttccgttgc 180  
agattattcg tttttcactt cggtaatgac attaggagga atgattaccg ccgtgttcag 240  
cggtaaaatc tctgctctcg ttggctcgtc acagacaatg tggatctcag atgtttgctg 300  
tatttttggg ttggctcgtc tagcgtttgc acatgatatt ataatgctta atactggacg 360  
actcttcttg gggtttgggg ttggctctcat tagttatgtg gttcctgtgt atatagcaaa 420

<210> 2093

<211> 420

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-062-Q1-E1-D6

<400> 2093

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aagctgaaga aaggtgattt cggtgatgag agttctgcaa ctactgaatc cgatattgaa 120  
gagactttta agaggctcgt ttcggatctt ggtaagtctc ctgaagagat ctttgatgcc 180  
ttgaagaatc agactgtgga tctggttttg actgctcctc ctactcagtc tgtgcgtaga 240  
tcattgcttc agaagcatgg gaggataagg gactgtcttg ctcaactcta tgcaaaggac 300  
attactctg atgacaagca ggagctagat gagtctctgc aaagagagat tcaagctgca 360  
ttccgaacaa gatgagatta agaagaacac ctccaanccc acaagatgaa atgagaactg 420

<210> 2094

<211> 417

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-062-Q1-E1-D8

<400> 2094

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gtcttgcggtt cacaaagttg tctcactctc aatggactga ttacttcctc tctgttccca 120  
tcgatgattc ggagtttagac gctattacaa gagagattga cataatcaag cctgaagtta 180  
ggaagctcct atcttccaaa ggtgatgatg agacatcaaa gaggaaagtg cttttgatcc 240  
aatcgcttct tagccttggc ctgcgatttc attttgaaaa tgaaatcaan gatataattan 300  
aagatgcttt tcgaaggata gatgatataa ctggatgatga aaatgacttg tctacaatct 360  
ccatcatggtt ccgcgttttc agaanatacg gacacanttt ncatcaagtg tattcaa 417

<210> 2095  
<211> 429  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-062-Q1-E1-E3  
<400> 2095

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ancatcatct tcaacaccag cttaacgaaa atggagtata ataagtggcc acggactagt 120  
actctctcac caacttcac ctctccaagc aaaccctaac cctaaccacc accatgtcgc 180  
tacctctgct ggtcttccgt caaggatggg tggatcgatg gcggagagag caaggcangc 240  
cancattcct ccactaacgg gacccctaaa gtgtctctga tgcgactcca gcaacactaa 300  
gttctgttac tacaacaact ataacctcac tcagcctcgt cacttctgca aaggttgccg 360  
ttcnctactg gacacaagcg gggcgccctg agaaaacgtc cctgtaggtg gaggctgccg 420  
gganggaat 429

<210> 2096  
<211> 389  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-062-Q1-E1-E6  
<400> 2096

gactcttttt atgaaaacat tcatcaaadc ccgagaggag aatgaaaaac aagccgaggc 60  
tgagaagaag aaactggaga aagaagcaat taaagagaag tcagcgacaa agaaagatgg 120

cgtcgataac gacaacgatc ttatccagca gatccataga catagaacat gaacaaacat 180  
 cgggtcttgaa cggaagaccc gaggttttca gatcgatcga taaaagcttt gttttatagg 240  
 actcaatggt gcacatacgg aacaagagca gagatctttc ctaagatctt aagacaaagt 300  
 agtcaacgtc tatgatgttt agatggaagt gttttatctc tgatcacttc attgatgtaa 360  
 aatcagaggt tcgtatttat gtcctagaa 389

<210> 2097  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-062-Q1-E1-E7

<400> 2097

acgcgtccgc ccacgcgtcc gtgttactat agatgaagaa attacggatg agaaacaaga 60  
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 tgatgaacct gcggatagag aagatgatga agggttggta gttgcagaaa atgttcatgt 180  
 tcaaagttaa ggtatagatt gtgattctcc agttagcggg ggcagtaact ctgattcacc 240  
 acccgtagca gtcaccac caaaccttc ttccactgtc aatcctggta gtaacagatc 300  
 ggttttggga agttttggcg ctttacgaat tggaccaaca cgaagagctg ctgggcctcg 360  
 ctctcttggt tccagtagga gttcgccaac tggatcacat ccttcttctc caagatcaca 420  
 cagtgagaac gang 434

<210> 2098  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-062-Q1-E1-E8

<400> 2098

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 tagtcatgaa gcttatttca cttgtagaa acgttcgttc tcgccaatgt caaccggaag 180  
 taatctgggc tgtgcaagtt cgtttcttgc agcaagactc tgtctcgaaa gctaaaccca 240

agaaatacaa ataccgctca gtttatgatc cgtatgggtcc tagaccccag ctttcaagca 300  
 aaatcatgga gctagctgag cgtatagctg ctttatctcc agaagaaaga aaacagattg 360  
 gtctctgcaact caatgaacac ctgaggcttc caaaacaaca gatgatttca tcgggcgg 418

<210> 2099  
 <211> 398  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-062-Q1-E1-F10  
 <400> 2099

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 ctgagaagtt tgctcctgat ctttcatggt atgtagatgt gatccttcag ttgatcgaca 180  
 aggctgggga ttttgtttagc gatgacattt ggtttcgtgt ggttcagttt gtaacaaata 240  
 atgaagacct gcagccttat gcggcatcaa aagcaagaga atatatggac aaaattgcaa 300  
 tccatgagac catggtgaag gtcagtgttt atatcttggg ggagtatggt caccttttag 360  
 ctaagacaac ctggatgcag tgcaagtgaac ctcttttag 398

<210> 2100  
 <211> 403  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-062-Q1-E1-F12  
 <400> 2100

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 tgagtttctt ctcaaaagtc tcacacttga agacgttcca ggccatggca gagtccatta 180  
 catctgtaat tcttggattt accctgctaa aactacact acagaccgag tcttcttctc 240  
 caacaagact tatcttccac atgaaacacc aagcgacgct gctcaagtat agagaacgaa 300  
 gagctagtga gtttgagagg aaccggcgaa ggagagctta aggaatggga cagagtatat 360



gactaangct tactacaatg atttaggggt cccaccaaag gaa

403

<210> 2101  
<211> 457  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-062-Q1-E1-C10  
  
<400> 2101

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accattgtga gacagggtag tggtatttat atagcaaacg tcggggattc acgtgcggta 180  
ttggccacag ttccagacga aggaagcttg gtcgcgggtc agctcaccgt agatttcaag 240  
ccaaacctgc ctcaggagga agagcggata atcggatgca acgggagagt attttgcctt 300  
caagatgagc caggggtcca ccgtgtatgg caaccaagta gatgaatctc cggggctcgc 360  
aatgtcaaga gcattcggag actattgtat caaagattac ggattggtct cagtgcctga 420  
agtcactcag aggcataatat ccattagnga ccaattt 457

<210> 2102  
<211> 466  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-062-Q1-E1-F3  
  
<400> 2102

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gttactgagc gtgaacttga ggatgagttc cgtgcctttg gagttgtcag gagtgtttgg 180  
gttgcccgtg gaccacctgg ttacgctttt ctagatttcg aagatcctag ggatgcccg 240  
gatgctatcc gtgctttaga tggcaagaat ggctggaggg ttgaacagtc tcacaatcga 300  
ggtgagcgtg gtggcggcgg tcgtggtggt gaccgtggag gtggtggcgg cggccgtggt 360  
ggtcgtggtg gctctgattt gaaatgctat gaaatgccgg tgagactggn catttcgcac 420

gtgaatgccc gtaaccgttg gtgggaactg gaacgcgtcg caacca 466

<210> 2103  
<211> 464  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-060-Q1-E1-G2  
  
<400> 2103

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caatggaggt tgagaagaca gagaagaaca ttgcagagga tgatgagtct aagatcatct 120  
acagaggatg gaaagtcatg cccttcatca ttggaaatga gacatttgaa aaattgggga 180  
ttgttgaag ttcategaat ctggttatat acttaacgac ggttttcaac atgaagagca 240  
tcacggetgc gaaagtcgtc aacatctacg gtggcacaag caactttggc accatcgctc 300  
ctgctttcct ctgtgactcc tactttggcc gctacaagac cctatctttc gccatgatcg 360  
cttgcnttct cggttcgggtg gcaatggatn taacgggctg tgatcaancc cctgcanaca 420  
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<210> 2104  
<211> 443  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-060-Q1-E1-G3  
  
<400> 2104

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gcagagatct cataagcctt ccctcttctc ctcccacaac aactggcacg tctctctcct 180  
tcgtctctc ccttcttctc cccaaccagc aacgctgctc tactcttatt cacgcgccgt 240  
tcatggcttc tccgctcgtc tctcccctat ccaaaccgcc gccctccgcc gtcattcttc 300  
aagtcattct cgttatacct gatcaagcgc gtgagatcac acaactcaca cgctgcctt 360  
cctcggtttc tcccaaaact ctgggactct ggagcaactc aaantaaggg gaaagacgtg 420

attggtccgg ggttttaaaa aac

443

<210> 2105  
<211> 499  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-060-Q1-E1-G4  
  
<400> 2105

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agcagattgg aagccacctt tggtgataat acctccacag aatgtacctg gagttttgac 180  
tttccagatt ctaaagatgc tatgtctcat ctcaagtcag aagcagacct ctctggaagc 240  
aatggggcca ataatgtggc tagtgttatc gaaaaactga atgctcttcg gtcacatctc 300  
ttagcagcag agaaatggaa tgcttctcaa ctacacttat gtgacaagta agtatctggg 360  
aatgtgcaac anacttagtt cattatatgg ctttgagatc nctggacaat tgagcaactc 420  
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tgttccccgc ccaacctta 499

<210> 2106  
<211> 477  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-060-Q1-E1-H2  
  
<400> 2106

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gattttgaac acccaaactc ctcatcgaat ttttcttgct caacgtatca tcgcacaatt 180  
cgtctctcgt tttccgtcac gtggataatc gaaatctcat aatcccaaag gtaaaacaat 240  
caattctggg attggaattt tggatccata ggatcgtcaa ttgaaacaat cccgatggcg 300  
ttatctatga agccattcag aagccgatga ttccggtttc cagtcaaaca atctttgggt 360

cggttagccta acgccggaga cgacagagtc agatctgacc gaagttgttt gggaagatac 420  
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<210> 2107  
 <211> 490  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-060-Q1-E1-H3  
 <400> 2107

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 tttccacgtc gatcctcccc tccgcattga ccttttcgat cttctcgccg gcgaggattt 180  
 ctccgacgat cctctttccg cctccttggt ccgcgcgcac gtatcttctg ccgacgctgt 240  
 cgactccgat ctcagctacc gaaatagatt cctcctcaac catcctaccg atccaatcgg 300  
 tctctctggg cttctgcttc ttctcagtc cttcggagcg atctatctcg gagaaacatt 360  
 ctgtagctat atcaagcgtc aacaatagtt ccacttcaga agttcgggat gttaccatta 420  
 aaggaagaaa ttcagacaga gaaggcagag gantccaact tcnggatata tccaaagtca 480  
 acctggttgg 490

<210> 2108  
 <211> 488  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-060-Q1-E1-H4  
 <400> 2108

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 gttatgtctt cctccagtga agaaatttag aacctatcaa agaggcagga attttgagg 120  
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 agtgggtaaa aactgactcc ctgaagacag ttgaaaacac agctatacca attatcatgc 240  
 ttgttggtga agtccttctg gatctgatat gcagtataca gtcacaaaaa gatggtccag 300

actgtatcac cgttgaccag gatagcaatg gtaacactga aatgggttga tttgaagact 360  
 ctgcagcagc aaactcttgc caacaaacac tggaaacttg gcaattgcaa aatcctgtcc 420  
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aatggaaaga caatttacgc ggatacatca tgcattgtac cgggggtacaa ggtattactt 360  
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 caaattctcc angagaagca gcggcaacga ttcgtggccg cacgatctcc gttagaggaa 180  
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 cgaatcatgt tgctattcag atgggttaatt acgctctttc tcacgctagg tcacaaaaaat 300  
 cagatgaatc ttatgctcaa gggatgctag tgcttgagca gtgtcttggg aatcaaccta 360  
 acgatgatca ggtttctcat gantctaaaa gcaacagtct tgctttgcca atgtctgac 420  
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 <212> DNA  
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 ttctttctaa aaagtttttt tttttgtcaa ttggtcttct tcttcctcat ccgctcgctt 180  
 atatttaatt taataataat aaaaatcggg gttcattttt atataaaagt ataaattttg 240

tgtttggttg atccatccgt agtcgtagta gatctacaag ctctgaaatt ccacgcccac 300  
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 agccaggtga taagtttaag gatcttggtg gaagtgcata ctatgttgcc ccagaagtgc 180  
 taaaacggaa ctatggacca gaggctgata tctggagtg tgggtgtgatt ctatacatcc 240  
 ttctcagtgg tgttccgcct ttctggggag aaaatgaaac ggggatcttt gatgccattc 300  
 ttcaagggca acttgatttt tcagctgac catggccagc actatcagat gggtgccaaa 360  
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 ggccttgcc tgcaaagaca gagaagatta ccgcaatact actaacttgg aaagaaagtg 240  
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gggttacaca ngggttancca tatgnnttga acngatgcc a nagatattga tgaatgtaaa 360  
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<210> 2115  
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 tcttcggctc cggcggcgga gaagaaagct gaagacaccg gtggagctgt ccctgataat 180  
 ggcaaagttg gtaaaaagag aaaaagaaaag ggcaaagttt ggctactact aacaatccta 240  
 ccgatggacc tgcccgtact caatcacttc ctccgccac tgcaacagat tatgaccgtc 300  
 caattaatca gatcaacgac caccatataa caaccactaa taatccgcc a cgtcacgac 360  
 tgtatcetta tctgcacaa ggctattatg cgccgcaagt catgtatggc gtaagttata 420  
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<210> 2116  
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 <212> DNA  
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 gaaccagtct cccatgttgt tgctcgtcct tccccaaatg acattctcga gtggcattat 180  
 gtgctggaag gcagtgaggg aacacctttt gcaggtggat ttactatgg aaagatcaag 240



tttcctcncg agtatacctta caagccacca gggattacaa tgactacacc aaatggtcga 300  
 ttcatgacac agaagaaaat ttgtttatct atgantgatt ttcatccaga aagctggaat 360  
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 gtccccg 426

<210> 2117  
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 aatgttaatt actgatcatt cgaatctgaa attgaagcat atgagtgtt aatctgtgag 180  
 tgttagaaga agtagaagaa gatgcagagg gttagggttt catctcaaag agcagttgtg 240  
 cataagcttg gtgatttctca gatgacatta tctcccaaat ttagagtagc tgcacgata 300  
 caatcgacat tgttcgatag atcatcggaa ttagaactgt ctcttagagg agagcccttg 360  
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 gncatgtt 428

<210> 2118  
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 <212> DNA  
 <213> Arabidopsis thaliana  
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 cagacacatt anctgcaaag ctactaggag ccgctgataa atacaagttg cctagattaa 180  
 gtctaattgtg cgagtcagt ctctgcaagg atatatcagt agattccgtt gcaaattatt 240

tggcgcttgc tgaccgttac aatgcttccg ccttgaaatc cgtttgtctg aaattcgcag 300  
 cagaaaatct catcgctgtt atgaggtcag atggggttga ttatctaagg gaacactgcc 360  
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 <212> DNA  
 <213> Arabidopsis thaliana  
  
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 tttctattat acattttaa acattttaa tcttatcaca ttacgtaaag agaagcacan gtagattttg 180  
 ggggtacttaa catcatgatg aatcagactt caatgtagg gtaggattcc tanatttatt 240  
 tttgtataag acaaggaggt agatccaggg ttttaactgat gattatgaaa gtcatttaca 300  
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 ttagctgctg atgttgtag cgtggcaaga aaaacacagt catcgcttca gaaattgcgt 180  
 caaatgcac agagacgagg aggtgcagca tcagggtgtt ctgatcaaaa tgtatctgaa 240  
 acagacaaga tgtgtatgca gttgttcctt gatattcagg agtatggccg aaacgtttct 300  
 gctttggggc tgaaaccggc ggatattccg gaggactgtt ctttctggca atgcgttgca 360

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cgtaatatgt ctgttattgc tcatgtcgac cacgggaaat ccaactcttac tgattctttg 180  
gttgctgctg ctggtatcat tgcccaagag gttgctggtg atgttcgtat gactgatacc 240  
anagctgatg angctgaacg tggatcacn atcaagtcca ctggtanttc tctctactan 300  
gagatgactg atgaatcctt gangagtctt actggagcca naagaccgaa gaccagtagc 360  
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ggctcccccg ta 432

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gaggtgtagc agacggagga gaatctgata ccgacgagga tttgcgcgac aacgatgatg 180  
ttgttatgcc gggaacgaac gaagctgaag ctgaagacga cgatcccgaa gaggaagatc 240  
tcaattctcc gtctacatca tcaactccca tgggttctac gatctcagcg actgctgttg 300  
tttccgggac cccgacggcg acttctctta caggcgccgt gaccgttgca cttccggctg 360  
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<400> 2123

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taggagattc gttgtatctc cttatgatca caaatacagg atatgggagg ctttcctagt  240
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aaggccacca ctatctatca ncgataacat tgtgaacgca ttcttcgcca tcgatatcat  360
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ccgttaa                                           427
  
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<223> Clone ID: LIB22-060-Q1-E1-E3

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acctcatcgt agagagagaa acacaccaac cattgttaca ctctaagaga agagaagaga  180
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taaaactctt gtcacacaca ctgttatgag tcattttctg ctgtgtgtgt tttgttttgt 180

ggtgatgtaa gttaaaaaca agcgtgattc tcatgtggcc catctcaatc aatggtttgt 240

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aaaactgtat gtaactatgt atggttcttc gaatatttta tcatttatct ctaatgtcaa 360

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<210> 2130

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<212> DNA

<213> Arabidopsis thaliana

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<400> 2130

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<210> 2131

<211> 402

<212> DNA

<213> Arabidopsis thaliana

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 ggtaacaaca atcctnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnatgct tctattgcag caattgcaaa aacaacaaca 240  
 gcaacaagca gcaatgtcta gattcccgtc gaacatcgac gtgcatctcc ggccaccggg 300



gttgattcag aaccgaccca ttaatcctcc gcctcagcag aatcctaccc ctaaccctaa 360  
 tttgggacag caagacaccg aattttcann nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 420  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nattgatgag ccattgaatc 480  
 acatcgagct tcagtgcgcc tatcagggac gcttggn 517

<210> 2134  
 <211> 504  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-059-Q1-E1-H4

<400> 2134

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 tatattgttg gttttagatg atgtttgggc tgangaagag tccttgctac aaaagtttct 120  
 gattcagcta cctgattaca agattttggt gacttctcgg tttgagttca caagttttgg 180  
 tcccactttt catttgaaac ccttgataga tgacgaggtc gaatgcagag atgagataga 240  
 agaaaatgaa nagcttccag aggtgaatcc tcctcttagc atgtgtggtg gttgcaactc 300  
 tgcggttaaa catgaagaat ctgtgaatat tttgggtggt ctttggcatc ctggatgctt 360  
 ctgctgtcgt tcttgtgaca aaccaattgc tattcatgag ctcgagaacc atgtttcaaa 420  
 ctcaagaagg caannttcac aaatcctgct atgaaccggt actgctangt ctgcaaaaga 480  
 gannaagatt gaaaacgttc anta 504

<210> 2135  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-059-Q1-E1-H5

<400> 2135

acgcgtccgc aactctgatc cttctctcaa atgggttggtc tgatttctcc tgtaatgaaa 60  
 ctccgtcgtc tctcctcagc cgactcgcgg cgatttgcat accggaatct cgccgagaat 120  
 atggaagatc cagtcataag ggtggtggta gggaaggaga agaaggagtt catggtcgaa 180

ccgtatgtac tcgaagagta cccgttcaga gtcttgatag gttcagctaa ggatcgtgcc 240  
aagaaccgggt taaaccggac cggtagagtg gtgtggcttg atcatgtcga ctcgatctta 300  
tttgagcact tgctgtggct tcttcggaac gatgcctcta cgttttcggga tttggatgtt 360  
ctcgagatca ttgaattcta tgctcaagat tgttagggaa agaaatggat taacaagtgt 420  
gcttttacag ttttacnttc agtgangata tgatcattca agaaaacggt ttact 475

<210> 2136  
<211> 456  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-059-Q1-E1-H6

<400> 2136

acgcgtccgt tcttttccga gggttcaaatt tcgttcaatt tctcgattga agataacctga 60  
aatcgcgtta ttctaggtcc gccgctgttg gatctgcaaa ttccccttcg aatttgaaca 120  
tttgtgattt caaattcttc gagaagatga gcgcgaaaaa gcttgaaggt tcgtcggctc 180  
cggcgaatcg acgggatccg tacgaggtcc tttgtgtatc aaaggacgct aatgatcaag 240  
aaatcaaadc cgcttacaga aaattagctc tcaagtatca tccggataag aatgcgaaca 300  
atcctgatgc ttctgagctt ttcaaggaag ttgcattttc gtatagcatt ttgtctgac 360  
ctgaaaagag aaggcactat gacaatgcan gatttgaggg actcgatgct gatggaatgg 420  
atatggaaat tgacttgtca aacntcggga ccgtaa 456

<210> 2137  
<211> 479  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-059-Q1-E1-H7

<400> 2137

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attgcatcag accaacacac aaacatcatt cgggtggtatg gtgtggagta tgatcaagat 120  
tttgtatacc tttctctaga gcgttgccacc tgcagtttag atgatctaata caaatcctat 180

ttagagtttt ctatgacaaa agtattggaa aacaacgatt ctactgaagg agtggctgct 240  
 tataagatcc aacttgattc tttggaggga gttatcaaag gaaacaactt ttggaaagtg 300  
 gggggtcacc cgtcacctct catgcttaaa ctaatgaggg atatagtttg tggaatcgtc 360  
 cacttacacg aattgggaat agttcatcgg gacntgaagc cacagnatgt gtnaattagt 420  
 aaagatatga ctttgagtgc aannactgtc cgnnatgggc atttagcnag cgtatgtcc 479

<210> 2138  
 <211> 498  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-059-Q1-E1-H8

<400> 2138  
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 agaagaaaca cgaggcggcg gatttgccac gtgttgagct gacggcgatt gacttgcaat 120  
 ggatgcatgt attaagcgaa ggctgggcaa gtccactcgg aggtttcatg agagaatccg 180  
 agttcctcca aactcttcat tttaactcgc tacgtcttga cgacggctcc gtcgttaaca 240  
 tgtccgtgcc tattgttctc gctattgacg atgaacaaaa agcacgtatc ggcgagtcta 300  
 cacgtgtcgc tcttttcaat tccgatggta accccgtcgc tatectcagc gatattgaga 360  
 ttataagca tccaaaggaa gaaaggatag ctagaacatg gggtagcagc gctccaggtt 420  
 tgccttacgt tagacgangg cgatanctaa tgctggaaac tgggctcaat tgggggtgat 480  
 tcttgagggt ccttgagc 498

<210> 2139  
 <211> 460  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-059-Q1-E1-H9

<400> 2139  
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 tggagaaatt ctcgtacaac tcttatccag attcaaccga ctcgtcaccg agatctcgtg 120

agatcgaatt cgataacccg ccgcctccat gggatgatca gaaccagaac cagcagcaac 180  
 atagctacaa ggtgaagttt atgtgcagct atggcggcaa gattcagcca cggcctcacg 240  
 ataatcagct cacttacgta aacggagaaa cgaagattct ttccgttgat cgcgggatta 300  
 gattccctgt tttaagcttc caaactctcc accgtatgcg gcggcgggtga tggcggcgga 360  
 ggagaagtta cgtttaagta tcagcttccg ggagaagact tagacgcttt gatctcgggt 420  
 acgaacgatg atgatctggg agcatatgat gcacgaagta 460

<210> 2140  
 <211> 462  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-060-Q1-E1-A12

<400> 2140  
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 tatggccctc ctggttctgg gaagacactt attgcccgctg ctggttgctaa tgagactggg 120  
 gnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 180  
 nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 240  
 nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 300  
 nnnnnnnnnnn nnnctcttga cacttatgga tggctctaaa tccaagagcc catgtgattg 360  
 ttatgggaag ctaccaaacc gtcccaacag cattgaccct gctttgagaa gatttggacg 420  
 ttttgatag gagaaattga tattgggtgt tccnggatga aa 462

<210> 2141  
 <211> 450  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-060-Q1-E1-A2

<400> 2141  
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 atgagtcaga gaaaatctgt gatggctctt tccaacgcct cctctctctc caccagatct 120

atctacggcg gtgatctttc tcaccgtcca agcaaccgtc aatcctcctt cacatttcat 180  
 cccgccgtca acaccaagcc taaatccgtt aacctcgtca cggctgtaca cgcggctgag 240  
 ccagctanaa acgctgtttc agtcaaagaa tccgttgctt cttcttcgtc tgggtgcattg 300  
 aaatggactc cagagagctg gaaactgaag aaggctctgc aacttctga ttatcctaac 360  
 gccaatnagc ttgagtctgt gcttaaaang natagagggg ntttctccg gaatgtgntc 420  
 gcccgggaaa aagccnaggg atccctggag 450

<210> 2142  
 <211> 443  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-060-Q1-E1-A8

<400> 2142  
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 ttgttatcga taatttctct ggattttctt tctgggggtga atttttgcgc agagatgggt 120  
 tcggcgaaaca acgagtacga gtttctgagt gagattgggc tgacttctca caacttggga 180  
 tcttacgttg ctggcaaatg gcaagccaac ggacctcttg tttcaactct caatcctgct 240  
 aacaatcagc caattgctca agttgtggaa gcttctctag aggattacga gcaagggttg 300  
 aaagcttgcg aggaagcagc taaaatatgg atgcagggtta cggctcctaa agagangtga 360  
 tctcgtcaga caagattggg ggaatgcact aagattcaaa cctgacnacc ttgggcgctn 420  
 tccttccctt tgaaaatgga aaa 443

<210> 2143  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-060-Q1-E1-A9

<400> 2143  
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 ttcttcataa gttcactgtc gatcttccga aaaagcacgg aagaggagga caatctgcgt 120

tgcgatttgc tcgtcttagg atggagaaga gacataacta tgtgaggaaa accgcggagc 180  
 ttgccactca gttttacatt aatccagcta cgagtcagcc taatgtctct ggtcttatac 240  
 ttgctgggtc agcggatttt aagaccgagc taagtcaatc agaactgttt gatcctcgtc 300  
 ttcaagctaa gatattgaat gtggttgatg tttcttacgg aggagagaat ggntcaacca 360  
 agcaatttga nctgtcngct gaagattcct atcgaatgtn aaagttcaga 410

<210> 2144  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-060-Q1-E1-B4

<400> 2144

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 gattcggttag atttccggat ttgaaaaaga gtcaccaact tgtacggatt ctcgttttgg 180  
 ggatcgagta ttgctgattt gtgattttgt tgtttttggg tactttccct ttgtggattc 240  
 ggatctgggt ggtggctttg tcaaattggc gcattagatg anggatgttt gaatctggga 300  
 gctcgacatt gggaatgaaa aatggctgca attgaanctt gcnttccagc accaaacctg 360  
 aanacttttag caatccaaag acgctgtcaa acttccccctt gcaaagggtcc tcaatgaaan 420  
 atgtcaatcc ggga 434

<210> 2145  
 <211> 469  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-060-Q1-E1-B7

<400> 2145

nggtaccgag tccaagaatt cccgggcnag gttaacatat gatgaccaat tggtttccga 60  
 aactgattc caggcttctt agtatacagt gttgtggttg tgaagaacag taacttcaga 120  
 ttttgcgttt agactatgaa aatggatttg tatatcttat gttgtgctag ttcctagctg 180

ttagagctgg aattgatctc tggatactta gacatgttgt tacatgagtg gtggtgcgac 240  
attgatactg tttttgttgc aggagagagt gagagattct tgcagaaagc aatacaagaa 300  
caaggaagag gaaggggtgtt agacaccatt aacgagattc aagaaaggca tgatgcgggtt 360  
aaagacattg agaagaatct cagggagctt caccaggtgt ttctagacat ggccgtgctg 420  
gtagagcanc agggagctca gcttgatgac atcgaanagt catgtgggg 469

<210> 2146  
<211> 461  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-059-Q1-E1-H11  
<400> 2146

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ctantcactg atttcttcta atcctccggt ggagtgagaa gatgatattc cgcacgttgt 120  
ttcctcncct ctgcgcttta tttctatgtc ttccagtggc tgttatcttc acagtccagc 180  
gagaactcac ctgcgttata tcgccggagt ttggtttccg ctctctttcc gtcttctctc 240  
tttactctcg aaatgtcccc gactcttctt cttcttctcc ggcggttcgg attcgacagn 300  
cgattcccaa agaagacgac cctcttcttc nagntatctt ctcggggtta acccgaatct 360  
acctccnggt tcgacncggg aaaatacttt natggtantt aacgacgtcg cctcttccgt 420  
tcgcgcgtct ttggganatg nttcttcgac ggggatctcc a 461

<210> 2147  
<211> 518  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-058-Q1-E1-G7  
<400> 2147

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ctagcagtcg tctctttctc agttctccat gggaaagtct aaatccgcca ccaaagttgt 120  
tgcagagatt aaggccacta agcctttgaa gaaaggcaag agagagcctg aagatgatat 180

tgacaccaaa gtgagtctta agaagcagaa gaaagacgtg attgctgctg tccagaagga 240  
 aaaagctgtg aagaagggtc ctaagaaggt tgagagctct gatgattcag attctgaatc 300  
 tgaggaagag gagaaggcta agaaagtccc agccaagaag gctgcttcaa gcagtgatga 360  
 gtcattctgat gactcttctt cagatgatga acctgcaccc aagaaggccg ttgctgctac 420  
 taacggaact gttgcaaaga agtctaagga tgactcatca tcattctgatg atgattcttc 480  
 agacgaggaa gttgctgtca ccaagaagcc cgcagctg 518

<210> 2148  
 <211> 399  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-058-Q1-E1-G9

<400> 2148  
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 natgggtcga ctctgtgtcan aaggctacgt ttttaaccgtt cttgctccta acgacgaagc 120  
 catggctaag ctcaaacgg accagcttag cgagccaggt gctcctgaac aaattatgta 180  
 ttaccacatc ataccggagt ancaaacaga ggagagtatg tanaacgctg ttcggagatt 240  
 cggaaaagtg aagtatgatt cattganatt cccacataaa gtgttggctc aagaagctga 300  
 tggatctgtc nnattcggga cagcngtgat ggggtcannc ttacttgntt gattctgana 360  
 tctanagnng acnggtccgg gatttcagtt caaggggtan 399

<210> 2149  
 <211> 517  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-058-Q1-E1-H3

<400> 2149  
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 ttgtgcatct gagtagaaa aaagtctttt aaggaagtga gagaaaacat gtcttctctt 120  
 agtagagagc tcgttttctt gatcttacag tttctcgatg aagagaagtt taaagagact 180



gttcacaagc ttgaacaaga atctggggtt ttcttcaata tgaagtattt tgaggatgag 240  
gttcacaatg gaaattggga tgaggttgag aagtatctct ctggtttcac taaagtagat 300  
gataatagat actctatgaa gatattcttc gangataaga aagcagaagt atctcgaggc 360  
tttgataag catgatcgtc ccaaggctgt ggatatacta gtgaaggatt tgaaagtgtt 420  
ttcaactttt aatgaggagc ttttcaagga aataaacaca gctcttgaca ttggagaact 480  
tccgggagaa tgaacagttt tccangtaag ggggaca 517

<210> 2150  
<211> 497  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-058-Q1-E1-H5

<400> 2150

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aatgcattcc tctttgataa aattgggatt tcttcttctt cttattcagg tatcattgtc 120  
tcatgtcaa ctaagccctt ccttttacga taaaacatgt ccgcaagtct ttgacattgc 180  
aaccactacc attgtcaatg ctctaagatc ggaccctcgc atcgctgcaa gcacccctcg 240  
tcttcatttc cagcactgct ttgttaatgg atgtgatgca tcgatattgt tagacaacac 300  
cacatcgttt aggacggaga aagatgcgtt tgggaacgct aattccgctc gaggtttcga 360  
tgtgatcgac aaaatgaagg ctgccgtgga gaaagcatgt cctaaaactg tttcatgtgc 420  
tgatttgctc gccatcgcg ctcaagaatc tgtcgttttg gcgggaggtc cttcatggag 480  
gggttccaaa tggaag 497

<210> 2151  
<211> 452  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-058-Q1-E1-H7

<400> 2151

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ctgggaaata cttcagagct cgagatctac cacggaagat gacaattcga ggagcttgga 120  
 ggagattgat gatggcacgc aaggtatgat taggtttgat ctttctctc ttgagaacca 180  
 gagtggtttg tctcgtttg aggcaaacga tgaagatggg tctgttcaat cgggtagtcc 240  
 angatggatc gaacctagct ccgatgttcc ttanggtccg aagcatttta gtgagttatg 300  
 gtctgattca agcantgatc ggcttgatga tnagaggtta gtggatgatg atgggtgaata 360  
 acgaggatgg gtatagagag aancgaagtg ggtattgttn gaatanagtg aagngtatat 420  
 ctcaggacat ggatttgatg agcnctgagg ag 452

<210> 2152  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-058-Q1-E1-H9  
 <400> 2152

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 cttatcctga gaaacattga tttcctcttc gagttccctg agatcagc aactggaaac 120  
 aatgctacgc tcttcaactc tgggtctaatg gtgggtgagc catctaattc aacattccag 180  
 ttactaatgg ataacattaa tgaagttgtg tcttacaacg gaggagacca aggttacctt 240  
 aacgangata ttcacatggt ggcacggat tccaaaacac atgaatttct tgaagcattt 300  
 ctgggaagga gacgaacctg agattaaaaa natgaagacg aagtctattt ggagctgatt 360  
 ctccgatcct atacgttctt cattacctan gttataacaa accctgggta tgcctcagna 420  
 g 421

<210> 2153  
 <211> 504  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-059-Q1-E1-A10  
 <400> 2153

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cgcggtccgcc cagcggtccg tccttctcga ccactttctct atcaccaaag actctcctca 120  
 agggaaagcc ataaaggaga ctttgggaca ttgtgatgct aaagctattg aaggagagca 180  
 taagttttgt ggaacttctt tggagtcatt gatcgatctt gtgaagaaaa caatggggta 240  
 taatgttgac ctcaaggtca tgacgactaa agtaatggta ccggcccaaa attcgataag 300  
 ctacgctttg cataactaca cattcgtcga ggctccaaag gaacttggtg ggattaagat 360  
 gttgggatgt cacagaatgc cttaccctta tgctgtttac tattgccatg gacataaagg 420  
 tggaagtaga gtctttgaag ttaatttggg gacggatgat gggagacaac gggtagtagg 480  
 acccgctgtc tgccacatgg acac 504

<210> 2154  
 <211> 521  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-059-Q1-E1-A2  
 <400> 2154

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 acttttggan nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnnnnnnnaga cactaagatt caagtcctct ctttggtcgg agaagatgca 180  
 ggtagtctcg agcttcgatt ttcagtcttc gccgttctca cacggcgccg gagagattct 240  
 catttctccg gtagaccacc gagagttatc ctcacacggg gacgcgcttg aaggcgcggtg 300  
 tgatgactcg actagattgg cggcggtgaa agtacagaag gtctacagga gttatcgta 360  
 gcggcgtaga ttagcagact ctgtcgttgt cgccgaagag ctctggtggc aagcgatgga 420  
 ttatgcgang cttaatcata gtacgatttc gtttttcgat tactcgagac ctgaaactgc 480  
 tgtttccaaa atgggaaccg tggttaanctt gaatgcttcc a 521

<210> 2155  
 <211> 517  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-059-Q1-E1-A3

<400> 2155

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tcttttgtct tctttacctt attcgtctct cantctttga atcncctttc cctttctctc 180

aatcttctct atttacattt cttatctcac tccctctctc actttctcct tcaatgttct 240

ctcctctgcg ttttcacgaa acagagaacc ttatcgttcc gtcttcgtag acattgaaat 300

cgatagagag gtgttgattt gattaggttt aatattgatt cggatgaang gaagagatgg 360

ttactaatan ctacatggat acgcgatcaa atttgacaag tgtgaatcga ggatccaatg 420

tggatctcga agatcgattc cagaagggag ctcgaaatctt tgctccaaca acatcgtaat 480

cagcaatcat ttggccgaga acgagaacga gacattg 517

<210> 2156

<211> 505

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-059-Q1-E1-A5

<400> 2156

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cttatacaca gccatttgtg gaatcatacc aaacatttct agcccagggt gcaggatatt 120

tcattgtgga ggatcgggtg attaggacag ctggagattt cttgttggt gatcaagttg 180

agacaatgtg ggaaacagcc atttccaaaa ttgtagccat attggagaac caatttgcca 240

gaatggattc gcctactcat ctgcttttgg tgaaagatta tgtaactctc cttggcacia 300

cccttagaca gtacggttat gaagtgggtc cagttcttga tgcccttgac aagagccgag 360

ataaatacca cgagcttctt cttgaagagt gtcgaaagca aattgtgact gctattacag 420

aggacactta tcagcagatg gtaatcaaga aggaagctga ctatgaaaac aatgtcntgt 480

cgtttaacct tcagacctca gacat 505

<210> 2157

<211> 503

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-059-Q1-E1-A7

<400> 2157

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 ttttctaagc tcgtttcaga ttttcgattt caccattttt ataaactatt atgcgaactt 120  
 agttttgttc tttgtgattt tgtatgacaa tgatcttctt ctctaagctt aatcgctcca 180  
 tttctcgttc aaagggattt ttgtacgggtg gtgggtgtag atcggcggca aggtactta 240  
 cttcgccggg acttgaggcg gcgtctgtga atgaagtgga aggtggatta gggtttataa 300  
 gaagacactt tgcttcttta gcttcacgga agggtttagt caataatgat ttgattgggtg 360  
 tttttgctaa tccaagactt cgtagattct tctctgatga agctcctaag aagaagaatt 420  
 atgagaacta ttttcctaaa gataagcaag aaccaagag tgatcagaaa tcagagcata 480  
 aagaggggtt cagaaaagaa tga 503

<210> 2158  
 <211> 518  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-059-Q1-E1-B1

<400> 2158

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 gggtttcgtc gtctcctcca ttgcaaaatc tagctcgatc tgtgaagggt tctctgagtt 120  
 cttcaaaaat ctcttctaga gaaagacttc attagctcaa ttttagcaac ttctccacc 180  
 tccttttact cacactgtgc ttcgatttca acttcgcatt tcacaatgat cccaacgga 240  
 gaattgagat tacctgctct caagggtccgt gaagaccgcy tgtcaccctc agctcctatt 300  
 ccggtcacca gaaccctagt ggctgatact gacgtcactt ccgatgacga tatgagtaca 360  
 aattccgagg atgtctctct cgattcgtct cccgagaaca gtagagtgtc cagtgccgtt 420  
 ggtcgcagct acggggagaaa ttcttcttat tatacttact ccgaggtgaa gctcatcaag 480  
 agagactttg gtcgggtgcgc gcgaacanga cgggaact 518

<210> 2159  
 <211> 524  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-058-Q1-E1-G3

<400> 2159

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caaatctttg acgacatcaa ggaggaggat ttggtaagct acagataaaa aaaaaagcta  120
tgatatgaga taatgtagtc caccaccaca ccaaattccc ctttcaccgt ctctcttcgt  180
cggtgattca cattccgatt tgggtgtcttt ttttactctt aacaagtcct caaaaaccct  240
acttttactc gagattttgt ctccgcgcgc gagtaccaag tgcctcccga tctacgcccc  300
aatccctaaa tggctacgga gggtacaacc gtaccctaat tccaggaacc tgatctccgg  360
caggtttctc agacaccgga tttcaaaccg gaaatcgctc acgatgggtc taagttctgg  420
gcaatttatg attgctggtt cnattgctgg ctccgtccaa cacatggcga tgtttcccg  480
cgataccaan cnggaaccat ntgnaaagcg cctcgancaa gttc                    524

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<210> 2160  
 <211> 505  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-058-Q1-E1-C4

<400> 2160

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aaaatcgcaa gagagacctt aaacgacatc gttttcagat gaggagacac caccaccgat  120
gccaaatcgg ctccgatagc gaaaccggat ccgaatccga ttccgatacc gacacgccga  180
tgcgatgcat ctcttgtcga gaagagtacc tccctcgcaa cgccgggacc tgcaaggaat  240
gctacgtcga agccggcgaa actgaagaag aactcaaacg cgagatcgat gacctcaaag  300
ctaaagttgc tttccttcgc ttatcttctt ctcttgatca tggaactagt tcaacctcta  360
gatccttcac tgatgttggt ctcatcgctt ctgaagataa cgccggatct cctcctattc  420
ccgctcataa atccgttctg gtgagtcggt ctccagtttt caaaagcaat gcttgagaat  480

```

gaaatggaag agagtctaan cggca

505

<210> 2161  
<211> 471  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-058-Q1-E1-C6  
  
<400> 2161

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attatgcggt taaacatcaa caaaatctct gttctttttat atatatatga aaaaaaagag 120  
atttaagaaa aaaaaataga tgatacctta agcaatacta ttttaattgaa gtatgttttag 180  
ttattcatat taaggatctt gttttcaatt atgggtgaatt ttgagttaat tgaaatgata 240  
tttgtgaata actttaatga agaactcttg ttttattttg gtgaaatatg acagtaagtt 300  
ggaatgagaa gagaagtttt tgagtcggtg agcaccaatg cttctaataa aagggttcac 360  
gtggctccca aaatagcggc agaggaacaa gattatgagg agaaaggaat gcactgagga 420  
gaattctctc tctcagaatc ataaatcttc taatgtaatc acagagaatg a 471

<210> 2162  
<211> 489  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-058-Q1-E1-C7  
  
<400> 2162

ttcccgggtc gaccacgcg nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60  
nnnnnnnnnn nnnnnnnnnn nnnncagcacc tccgtcttct gattctatct acgaatcatt 120  
cgttcaatgt ttctccgaca agacaaaatc tccacaagcc caaatcaccg acaatgtctt 180  
ctctcggaca aacccttctt tctctctcgt ccttcgtgct tacattcgaa atggcaggtt 240  
caacacttca tctacgcaa aaccagctat catcgtcact cctcgtccg atatccacgt 300  
caagcgcgcg cgtcacttgc tcaaaaagtt taaatttctt tctcaanac cgaagtgggtg 360  
gccatgatta cgaaggtctc tcttacatct ctgataaaca ttttttatac tcgacatgtc 420

gaatctccgn tgatgtcnct gttgataanc gccgatcant cagcttggga tgtccggccg 480  
gagcaactc 489

<210> 2163  
<211> 496  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-058-Q1-E1-D1  
  
<400> 2163

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ttccctctct ttcttttcga ttgatctgg gtttcattgt acatagctcg atcttcaagt 180  
ttcgtcatct gggctcttga aagttttaga cttttagggt tgttttacnt gtgaaggttt 240  
ctctcttttc taagggattc tctgggtaat tgatcgatta gggtttaaga ttttagcggg 300  
gngggaaaag ctgtttggnt cganaattct atcntgatta acgtcacttg canctttcgc 360  
acaagttttg ggaattgtac tacgttttga ntgannanca tagagtnggg aagtgagttg 420  
gggagtttcc ctgaactggg ctnatcaang gngggngnct aagtcgggcn gtancccttg 480  
gtgggggtcan cgacct 496

<210> 2164  
<211> 512  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-058-Q1-E1-D3  
  
<400> 2164

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tctctagggt atggctacgt taactatgca actcctcaag atgcttccag ggcactgaat 120  
gagctgaatt tcatggctct taatggaagg gctataanag ttatgtattc tgttcgtgat 180  
ccaagtctcc gtaagagcgg ngttggtant atatttatta agaattctga cnaatcaaat 240  
gatcacaag cacttcacga gacattttca gcctttggte ccattctatc ttgcaaagt 300



gccgttgatc cctctggtca gtcgaaaggc tatggggttg tgcaagtacg aactgatga 360  
 agcagctcag ggagccattg ataaactgaa tggnatgctt cttacgata agcaagttta 420  
 tgttgggacc ctttgttcac aagctgcaga gagatccttc gggtganaaa gttaagttca 480  
 ctaatgttta ngtcaaaaat ctctccgagt cc 512

<210> 2165  
 <211> 474  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-058-Q1-E1-D7

<400> 2165

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 catccttcga attcaagttt tgggtattga tcgtgagaat tcaaggaaca tcttttcttc 180  
 ggtcagtatg tggcactcta agttagtgtt cgtctctcgg atcaaatttt cgaattactc 240  
 ttgcttagtt tctctgatta cttgtgtaga tgtgattacc caataagctg aaaacaaaag 300  
 gcgtgatttt gtgattactc tggcgtaata atgcctcaag tatgggtcaa cgggtcaaca 360  
 ctgcgagttc acggcggcgt cttacttctc gtggccgact tcaagcaggc taagcancgc 420  
 cgcgaggagg nagagctnaa ctaagttcnc aaacttgcag aaagaggagg atga 474

<210> 2166  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-058-Q1-E1-E11

<400> 2166

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 gatcgatctt cagatctatt gttttttaag aatgggtttc aagcgaacgt ttgacgctga 120  
 agatgttcaa gagctcaacg ttaagaatgg aagacagatt agttactgta ataagctggc 180  
 caaactagat gaaggagttc catatcgtct ttcactggag aagccagggtg tcgtangtaa 240

taataacacc ttgtttcttg cagaggggtt cacatgataa acttaagcag ttcgcttaat 300  
gattatctgt ctttatcatt tagcaggata tgatataagt gatctctacg ggtataaatg 360  
tgaggataac gttgacaang gggttgaaga ccaatgcgcc tttccccttg gn 412

<210> 2167  
<211> 495  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-058-Q1-E1-F4  
<400> 2167

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taaaaganag aggaaagaat tttcaataat tttcaacaag caaagttcat gatggggaat 120  
aagcgaaatc tcggatttgt gatcttcttc tgggctctgg tggttgcagt agtagccacg 180  
gccatcgagc atcgtcgcaa tgagaggact aaaggcgtca atggctctga caagatcatc 240  
atccgcgacc gtcgtggccg atctgctgag gtttacttgt atggagggtca agtcagttct 300  
tggaaaaatg agaatggaga ggagttactt gttatgagta ncaaggctat attccagcct 360  
ccaacaccga ttcgtggagg aattccagta ttgtttccgc aatacagtaa caccgggtcca 420  
cttcctcac atggatttgt aagacagagg ttctgggaag ttgagactan accacctct 480  
ttgccatcac ttnct 495

<210> 2168  
<211> 507  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-058-Q1-E1-F8  
<400> 2168

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tgtgtcgctt tgctgccttc attctcattt cacacgaaga ttaaaaaaag ttggtctctt 120  
tcctaattta gaanagtgat aaaccaatcc cagatccgag tctctctccc catctccttc 180  
tttctctctt ttgaataaca cactgcgggt ttttgccttt gagatctgtc attgtctctt 240

ccanatctag aacctttact tgggttgtaa cagattcaaa tatctgtaac tagtgagaaa 300  
 tcatcaattt ttaaagctga aggtcttcan ttactagtct gcatccttta actcggaacg 360  
 ttgggtctcc gtttggcttt atctcaaata agaaggcaat gaaaggaaga tnaagatgga 420  
 cggcanaaga agcgggtgat tgctttgggt tgccgttgca gcggtagtgc gtgntntcgt 480  
 anatctgttc nacgggctct tctgate 507

<210> 2169  
 <211> 526  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-058-Q1-E1-G1

<400> 2169

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 tgcgttgggc aaaatcccag acgaagatca gtgattaagt cttttgataa cttgagccat 120  
 ggcaactggt aaaactgtga aagacgtctc gcctcatgac ttcgtcaagg cttatgcttc 180  
 tcatctcaag cgatctggca agatcgagct tcccacatgg acagacattg tgaagaccgg 240  
 aaagttgaag gagcttgac catatgatcc tgattggtac tacatcagag ctgcatctat 300  
 ggcaaggaag gtttacctga ggggaggact tgggtgttgg gctttccgta gaatctaattg 360  
 gtgggnagca agaggaacng tagtcgcca cctcacnttt gcaaaagcag tgggtggnat 420  
 tgcccgtcac atcctccaac aagctgggag acagtgaaca ttngttganc tcgacaacaa 480  
 aaggaggaaa gaaggatcac ttccanttgg ccaaanggga atttgg 526

<210> 2170  
 <211> 396  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-058-Q1-E1-G11

<400> 2170

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gcgagagaga gagagagaga gctttggagt tgtcgtatct ctaaactcgga ggcaatttga 180  
 gtgagataaa gacaaaggaa ggaatcaagt ggactaccga agcgagtttt gagctttttc 240  
 anagacggat ttggagattt cttgttgata tegtctgcnt agaggcttat ttggtaccan 300  
 atganacaga tctgangctt cggaaggtat gggcganttc ggaggtttca atgaaaggta 360  
 atccgtggga ggagataact tctcctctc tngggt 396

<210> 2171  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-058-Q1-E1-G12

<400> 2171

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 ttgtttgatt gaagaaagaa aacaagaatg gtgtatttca atttcaatag gattaanacg 120  
 aagaagactc taattggatt tggattggga cagatcctct cgcttctctc gacttctctt 180  
 agctttacat cgtctgagat cgctaggaaa agattttagc tttttttttt ttcaaaccat 240  
 cccattttta aanattctca tgaacntaca aaatttgaaa tctttannag ggantaatgc 300  
 tccaacatca caagtcgttt ctgggttatg tgtgactggc antngtctag gcgantatga 360  
 gaatgganca ntgagngttt cangtannna atntttctaa gcgagtgcc aaganattgt 420  
 aaagccag 428

<210> 2172  
 <211> 463  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-058-Q1-E1-G2

<400> 2172

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 cgagagaggg aggggaatca tgcagaaacg gnnaacggtg aaggaatcta cgaagataag 180

aaatggtaaa ggtatggatt ccggcgaaaa gaacagatct gagaagagat tgatgaagtt 240  
 cgaggagtta cctaggtatt tgaaagataa cgagttcata cacaatcatt atcgatgtga 300  
 gtggncaatc anagaaactt tcctcagegc tttctcatgg cacantgaga ctctcaacat 360  
 ctggacgcat ttgtgtggga tttgcgatat ttacttggnt gatnnnntgt gaagttcaat 420  
 ggagacgaca ggcgccttgg cctccccggc tttgttaacc ttn 463

<210> 2173  
 <211> 511  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-058-Q1-E1-C3  
  
 <400> 2173

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 ttagaaggga gattcagata atgcatcatt tagctgggtca cggtagtatc gtgacgatta 180  
 aaggagctta tgaggactct ttgtatgttc acattgttat ggagctttgt gctggagggtg 240  
 aattgtttga taggattatt cagagaggac attatagtga gaggaaagct gctgagctga 300  
 ctaagatcat tgtcggtgtt gttgaagcgt gtcattegct tgggtgtgatg cataagagac 360  
 ttgaagcctg agaatttctt attgggttaat aaggatgatg atttctctct caaggcnatt 420  
 gattttgggc tatctgtctt tttcaancca aggtcaanta ttcaactgatg ttgttgggaa 480  
 gtccataatt atgtttgccc ccgaagtttt t 511

<210> 2174  
 <211> 490  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-056-Q1-E1-H9  
  
 <400> 2174

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tttgagacag attttcaatg gtgttttct taaagtcaac aaggctacga tgaacatgct 180  
 tcgccgtgtt gagccctatg tcacttacgg attccctaac ttgaagagtg tcaaggaatt 240  
 gatctacaag agaggttacg gaaagcttaa ccaccagagg atagctttga ctgacaactc 300  
 tattgtagag caggctcttg gaaagcatgg tatcatttgc actgaggatt tgatccacga 360  
 ngattctaac agtaggacct catttcaagg aagccaacaa cttcctttgg ncattccaag 420  
 ctttaangnac cactaggtgg gcctcaagaa gaanagaaat cactacngtg gaanggtggg 480  
 tgatgcccg 490

<210> 2175  
 <211> 509  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-057-Q1-E1-C8

<400> 2175

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 tgcggtgacg tttggtttgt tcttagcccg gaaggatcgc ctgattaggg cgggtgcttta 180  
 catggtggct cagtgtttgg gtgctatttg tggagttggt ttcgtcaaag cttttcaaag 240  
 ctcttactat gatcgttacg gtggaggagc caactctcta gcagacggct acaacacagg 300  
 caccggacta gccgcagaga tcattgnaac attcgttctc gtctacacaa gtcttctccg 360  
 ctactgatcc caaacgtaac gcctagagac tcccacgttc cggttttggc gccacttccg 420  
 atttgngttt gccngtgntt anggtacatt tggccactan ttcccattac cgggaaaccg 480  
 gnaatccanc ccnggccaaag gagttttcg 509

<210> 2176  
 <211> 476  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-057-Q1-E1-F12

<400> 2176

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 atccggatcc ggatcctatt gagtcggttc aggagaaacc aaagcgcacg cgtggatcgt 180  
 cgaagcaaga ggaaaatgaa ctgccaaga gtactagggc ttcgaggaaa aagaatctgg 240  
 acgatatcnc cgataaagaa gaggaattgg atgtggaaat tgagaagggtg gtcaaagcta 300  
 gggttgggag gcctcgggaag aacgcaggca gtgcaattgc gaatggaang aagaanttgt 360  
 ggaggagaaa aaaanggttg ggangccccg gaagaacgca agtagtgcaa ttacgggagg 420  
 aagaagaact tgtgnggggn gaaanaaggg nanctctaan ggctccggag aggtta 476

<210> 2177  
 <211> 449  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-057-Q1-E1-G10  
 <400> 2177

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 gatcattang tttctgaggg gataaccatt ttttttttct tcttaaaaag tttttttttt 120  
 tgtcaattgg tcntcttctt cctcatccgc tcgcttanat ttaatttaat aataataaaa 180  
 atcgggtgttc atttttatat aaaagtataa attttgtgtt tggntgatcc anccgtagtc 240  
 gtagtnaatc tacaagctct gaaattccac gccacatct cctccgtcct cttgagatcc 300  
 ttctccgtca ttcatTTTTt tgctcaactt gagttgcttc caacatcttg caagattgtc 360  
 nttgagttca ntcaaggtct tggaggaaaa gcacgctttt aaagctggtg tgaaacttgc 420  
 gccgttccng tgaaggaanc gaccgtttg 449

<210> 2178  
 <211> 523  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-057-Q1-E1-G8  
 <400> 2178

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 ttttcttcga atccaaatct ctgtgtctgc ttttgattca cagagaagga gcaggaaana 120  
 tgttgatata caatctatct cgtgaagaga aaggtaacaa tccggagatt atccgagaat 180  
 cgcaacgccg gagatttgcc agcgttgaaa tcgtcgatga gatcattaag ctggacaagg 240  
 aatggcgctc gcgtcaatct gaagttgata gcttcagaaa ggagttcaac aagctcaata 300  
 agcaagtggc gcagctcaaa attaanaaag aagatgcgag tgagattatt caacanactg 360  
 agaaaaacan acaagattct actgcaaagg angctgaagt tcgtgaagct tatgctgctt 420  
 tgaaagccaa gttggagcaa gttggtaatt tggatcatga ttctgttcca gttgataagg 480  
 acngaagnta atnaatccnt gtggattnaa ctgtgggggtg aaa 523

<210> 2179  
 <211> 455  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-057-Q1-E1-H12  
 <400> 2179

ancacgcgtc cgcacacgcg tccggacaaa ccagattatc catacctaaa gaggcttttc 60  
 agggatctct ttattcgaga aggttatcag tttgactatg tatttgattg gacaatcttg 120  
 acgtatccac agtttagttc gggctccagc tctagctcca agccaagatc aagcctgaga 180  
 ccaggctatg aancctccag taccaattgc cgaaagacca gatanacctt cagctggagc 240  
 tgggcaagac agtcgagata gattctcacg tgctttaaga gngcatatgc tagaagaaat 300  
 ggctcaagga anccngtggt gtacaaggct ggatnggatc tagaccaagg aacctcagan 360  
 gnatggtgtt agcatccgtc aanaggatnc cagtcaccag ananccaang agaagagtcg 420  
 agangnccaa atctcttcaa naaggaaaag gcaag 455

<210> 2180  
 <211> 484  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-057-Q1-E1-H8



<400> 2180

acgcgtccga aanactagcc gccttantcg tcttcttcgt tctctanttt tttctcagtc 60

ctctgttcnt agatcccttg tantttccaa atcttccgan aaaaatgtcn ggtanaggag 120

aaggaccagc tatcgggtatc gatcttggta ccacttacnc ttgcgtcgga ntatggcaac 180

acgaccgtgt tgagatcatt gctaattgatc aangaacag aaccacgcca tcttacgttg 240

ctttcaccga ctccgagagg ttgatcgggtg acgcagctaa gaatcaggtc gccatgaacc 300

ccgttaacac cgttttcgac gctaagaggt tgatcgggtcg tcgtttcnct gacagctctg 360

ttcagaagtg acatgaaatt gtgggcattc aagattcang ccgggacctg ccgataagcc 420

aatgatccaa ggtccaatan aaaggggtgnc ggagaaaaca gttcgcaagc tggagggana 480

attc 484

<210> 2181

<211> 452

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-058-Q1-E1-A6

<400> 2181

acgcgtccgc tttctcctcc gacacactcc aaaactcata aatctatctg atgcgaattt 60

gactaactct ttcgtaattc aggatcttac tacaaatctt taactcacca atcttcttct 120

tattcaaaga ttagagagaa aatggacaac gagctgttta tgancacaga gtttccacca 180

ccgccggaga tggcgacgca tttcgaacac caacagtctt cttcatcggc catgatgctt 240

aattgggctt taatggatcc aaatccgcat caagattctt cctttttatg ggaaagagtc 300

aacggaacan caacaacaac aaagcatctt tgantctgct ttaagctcat tagtctcatc 360

ancgacgccg tcaaattcna ncttctccgg gcggtgggtg tgacggtttt cgcancagn 420

aactcatcgg naagcttggg aanacatcgg ta 452

<210> 2182

<211> 515

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-058-Q1-E1-A8

<400> 2182

ntgnttacgc ctgcaggtan cggctccgnaa attccccgggt cgacccaacgc gtccgggtggn 60  
tgttccttga aatccgattc tgattccttc cttttggatc cgattctatc tccacettca 120  
agcacaatat tcgactcggg actctctctt tcttcttctt attgcaaaaa gattctcttt 180  
ttatctgttt tgtggatata cagattctgg ataaaaacaa tcatcttttt tctctcaaaa 240  
atctctgctt aagaactggg attcttcaaa agctcttctc ttgtctgatt tcttctgaat 300  
ttcccctcta agtctctcca attcttctcc attagctata aagtcgattc ctttatcacc 360  
gttctgaaga atttggtcga aagttttggc ctttagtanc caattttcaa tctgnccgat 420  
aactganttg aaaaggggtc caaaagttac atcacctgaa ancaacagtg cttttgattg 480  
tgttgggtgt ttggagtgtc tgataagttt aatca 515

<210> 2183  
<211> 465  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-058-Q1-E1-A9

<400> 2183

canaacgggc cagcctcccg ggtcgaccna cgcgtccgat ttgttttgct ttgtcagtca 60  
acggttgacc cattgactcg cccaccatcc atgacttctt cagcttaagt tatgcactca 120  
tcttttatct ccttcttaaa aaaatctgat gaactgtaac gttttgtttc ttctctctgt 180  
tctcgtctct gttacggctg gagttacggc ggcgtaccat cctaccgatg tctttctctt 240  
caactgcggc gatacttcca acaacgtcga caacagtggc cggaactgga cgggtggaaag 300  
tcgtcaaatt ctgtcgtcga atttagtcaa cgcttcattc acttcagaag cgtcatacca 360  
aaaagcaggg gtctctcggg attccgtaca tgaaagctcg aatattccga tctgagttca 420  
cctacangtt tcccagtcac tcccggttcg atatttcccg gggta 465

<210> 2184  
<211> 519  
<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-058-Q1-E1-B7

<400> 2184

actgtttacg cctgccaggt ancggtccga anattcccgg gtcgaccac gcgtccgaga 60  
ggttcctaag agagtgcctc cggatagtcc tttggctcct caatgggtaca cattggaatc 120  
tgagaaatca ccggggaatg acgtcatgct cgctgtttgg ctccgggactc aagctgatga 180  
agcgtttcaa gaagcttggc aatctgattc cgggtgggttg attccggaga cgagatccaa 240  
agtttactta tcttcgaagc tttggatatt gcgtctaacg gtcatacaaa cccaagattt 300  
gcagctaggt ttgggatccg aagctaagtc aaagatcccc accactgagc tttatgtgaa 360  
agctcagctt ggacctcaag ttttcaaac ggctacgact tcgattgggc cgtcggcttc 420  
ttccgtccgg atccggtaac ccgacttggg acgaggatct agttttcgta ncttccgagc 480  
cgtttgaagc cgttcttgat agtgactgtg gaagatata 519

<210> 2185

<211> 500

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-058-Q1-E1-B8

<400> 2185

ntgtttacgc ctgccaggta acgggtccgaa nattcccggg tgcgaccacg cgtccgcccc 60  
cgcgtccggt catttttaat aggaaaataa gacatagtta tctacaatat aaagcctatt 120  
cggataata acagagtaga atctaacaac ccaaagctt tcatagattg ggttttgtag 180  
ggatatttca gtttttactg gaaggatcat gaagaacatc aacaatggct tcttcctctg 240  
catgctttta ctctctcggg gttttgtgca ttccggggatt tcaattgatc ctttctcccc 300  
aagcgactca ctcaaacag agtgtgtaat gaagcctcca cgaagcagtg aaacgaaagg 360  
attattacaa tttagccgct ctgtcgaaga tgactctgat gaanaatgga aaatagatgg 420  
aagtngatc cataagagan atgacacaga gaattcagct tcaccaacga agacatttac 480  
aagcttntct gcttgggtga 500

<210> 2186  
 <211> 391  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-058-Q1-E1-B9

<400> 2186

acgcgtccgc ttactccaa gtttatgagg agatctagag agataatcat atagagaaag 60  
 agagatctcc agagaaaatc cattgaaggg aaaaaaacag tctgtctttc ataattgctc 120  
 tttctataaa tcttctctct tgtgttctta ctttctctct aaaaccattc tctctctctt 180  
 taacacttca tctactcttta cggaaaattt cttatcttca ccacctgagc catctctatt 240  
 ttcgtcaana cttctcaact tttgtgccaa aacgtcattt cttctgaggg aataaacaca 300  
 anagaacaat tttcccgga aatcatggag atttctactg ctctaataatg tctttcggnc 360  
 atcacggggg tatttctnat ggctcacatt c 391

<210> 2187  
 <211> 452  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-056-Q1-E1-H4

<400> 2187

ganccacgcg tccgcaacan ttanggtttc agangatcgg ctgattttca catccacaag 60  
 tatggcgact caaatcagca agaagagaaa gttttagcgg gatggtgtat tctacagctg 120  
 aattgaatga ggttctcaca agagagctag canaggatgg ttactctggt gttgaggtta 180  
 gggttactcc antgangact gagattatca tcanagctac tcgtactcaa aatgttcttg 240  
 gtgagaaggg gaggagaatt aggggaattga catctcttgt cnacaanaga ttcaangttt 300  
 ccagttgaca gtgtntgagc tctatgctga caaggttaan aacagaggtc tctggtgccca 360  
 nttgctcang ctgagtctcc acgtnacaaa gcttctcngg tggtcgttcc tgttcgcagg 420  
 gcccnttann ggtgggtttt agnatttggt ag 452

<210> 2188

<211> 389  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-055-Q1-E1-C4

<400> 2188

catctctcat tcaaaccac aagtccgatc tcgcatcca aacaccatgg gaagaggttg 60  
aagaagaagt gagacgaatc gtcgaacaag ttaaagagct tcatgactct tccacatcct 120  
tcgtctcttc ttctttctcaa gaagagcttt ctctccgtaa cagagcctcc gtcgttgact 180  
catcaatccg ccgtcttcat tctactcttg cctctgacaa acatctcgat cccaagcttt 240  
tcgaaaagct agaagaggat ntggaacgag ctagatgcat gcttgcagat ggagacacnt 300  
catcgtttcn tccanctaaa cctcaaagga acgttttgtg agaaatgttt ttgggacctg 360  
ttgaangtta ggaagcttca cgaaanaag 389

<210> 2189  
<211> 425  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-055-Q1-E1-C8

<400> 2189

aaattgaaga caaaaatgtc tcgcagatcg ctaactctcc tcaagaatct agctagaaac 60  
gcgaatggat caggtattca aaccgatcc gtgacttaca tgcccagacc cggtgacgga 120  
gcaccacgcg cagtgaacgt gatccccgga gatggaatcg gtcctctggt gacgaacgcc 180  
gtggaacagg tgatggaagc gatgcacgct ccgatcttct tcgagaagta cgatgttcac 240  
ggagaaatga gccgtgtgcc gccggaagtg atggagtcga taaggaagaa taaggtttgt 300  
ttgaaaggtg ggcttaagac tcctgttggt ggtggtgtta agttctctta acgtccagct 360  
taggaaagag cttgacctcn ttgcttctcc tggatcaactg ttttaatttg cctggtttac 420  
ctact 425

<210> 2190  
<211> 488  
<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-055-Q1-E1-D4

<400> 2190

gttacccttc cggtagccgt ccganaattc angggtcgac ccacgcgtcc gggaagttgt 60  
gtgagagaaa gaaaaagccc agagagaaga gagagagacc cacaacacan acacaaagta 120  
gacgaagaag acgacgacga aacagctctc ttcttctctc ctctctctca gcatcttctg 180  
ctggtttggg ctttcaactaa agtctcgggtg tgcacctaaa tgtgcttgat ccaaggctgt 240  
tataattctg tgtacagagc caatgccata tatagaaatg aagagcaaga taagcaaggt 300  
tcttgggtgt ctgtaagaaa cataaagcaa gtacaaagaa attcttgctc ctttgtccaa 360  
aatatcaagg agacttgggn aaagcataac cgcagctatt actacttgcc acgaacgaat 420  
gaagaaacag cacctggggg ttggataact ttttctccgg gagaagtga aactaaatga 480  
ngcccgt 488

<210> 2191

<211> 421

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-055-Q1-E1-D8

<400> 2191

tcacaagaga gagatagaga gagaaaaagg ctctgctttc tacattattt acgattatac 60  
actttccaac atggcgccct ctgtagataa tcgccaatac gctcgtctcg agccagggtt 120  
gaacggcgtg gttcggtttt acaaacctcc cgttccaggc cggtcgatt cccctaaggc 180  
gcaccagaac caaaccacca accaaaccgt gttcttgaaa ccagccaagg ttcattgacga 240  
tgacgaagac gtgtcgagcg aagacganga acgangacac acaacaagca acgccgtgta 300  
ctacaaggag atgatangaa aatccaaang ccgagcttgg aaccgtccgt tttggacctg 360  
agggacgaat acacggcttg ataactggga ttngagccgt ancccttcca tgggtacgtt 420  
c 421

<210> 2192

<211> 491  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-055-Q1-E1-E1

<400> 2192

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acccttcngg tagccgtccg aaattcaagg gtcgaccac ncgcccgaga aattctatta 60
tcaattccta tcatttgta agaaaaagag ttagaagtat taataatctt acaatattta 120
tagataagat aacaacaata tgaagcattc tcacgttttg cttcttctat ttgttcaagt 180
cattgtcctt ttgcctctcc tttgtctatc cgacgatttt gttaactcta gagctactta 240
ttatggcagc cccgattgca aagcaaatcc tcggggacat tgtgggtatg gagaatttgg 300
nagagatata aataacggtg aagtgantgg tgtttcatgg gcgactatgg aacaatggaa 360
ctggctgtgg gtgctttgtt accangntg aggtgccagg atagcancac actgccaant 420
gaggaaagga tanacgtngg tggctacggg actcngngg aaaggagatg gcacgggcct 480
tcacccctaa g 491
```

<210> 2193  
 <211> 374  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-055-Q1-E1-E4

<400> 2193

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acgcgtccgt gaaaccctaa ccacaacaat cgccgccgtc tctagaaata tccatccacc 60
tacttcggct ttgtttatca gattttgatg aaaccangat cggttcttcc tctagatccg 120
ttctaggttt tctanttcnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnagac atgtctctgt ttctgaaaga 240
cgattcgatt canattcgcg aagtctggaa ccgataacct tcaagaagaa atgggatctg 300
atccgagatg tcgtcgacga cgtcccttac gtcgccatgg gacactgagt tccccggcat 360
cgtcgggtccg anct 374
```

<210> 2194

<211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-055-Q1-E1-F10

<400> 2194

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aaaacccaaa tcgaaaaatc gattcttttag tcagaaaaaa tgaggaccaa atctccatct 60
tctcttaatc tcaagggtcat attcataggt tcttcaatct tgatcttgat catcatctac 120
ttagcaagat caaacatctc ttcttctctt tcaaagccaa tctccaaanc aaatctctcc 180
caagaagaag aagaaactca gcataaacia gaaggatgtc caacaacaca acaatgcaca 240
aagatgccac tttctttatc cgatgcattg ggttcattac gtcantagta acgtcactcc 300
acaacngaca ttttgatgaa gtcnctgtct caagngagaa gtcttgggac aangaagtcc 360
ncnctgggta aacttccttg ggcgttgggc ttaaggtcnc gacagtt 407

```

<210> 2195  
 <211> 455  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-055-Q1-E1-F12

<400> 2195

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ctgtttacgc cttncagcan gcctgtaacg gtccaanaat tcccgggant cccatattgt 60
gatnctcaa acggacgggt tgtgggaatc agtggagtct ctttttgagt ttacgctgaa 120
tcatctggga gattgacaaa gaagagtta agacagtgat gagtctgatg cgatctcagc 180
atagacaagg agttggccac agagatggcc ttcgaacagg gttacatatg accggttctg 240
tcgaggatgg aggattggta gaatacttct ttgggaaaga tggcaagtca aaaactgaaa 300
cacgacaaat tactaagtt tatgaaagat ctaactgaag agatgctgag gctgganttt 360
gcacattang acnataanch aangaggaag tatatcggcc aaagattttg canntgtcna 420
ttggntgcag cnggctgatg caaggcattn tgagc 455

```

<210> 2196  
 <211> 433  
 <212> DNA



<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-055-Q1-E1-F2

<400> 2196

gtggagagat tgatttaaga tacagagttt gnatctatct tgaggagaac acgaagaagc 60  
tcagggaata tattgcagtt gttcaaggg attcntgcan ggattgcttc tgagtangaa 120  
agctctgata acaattggga taantctcga gagagggata gagttataat gattaatccg 180  
tataaccaat cgctagttgt tccttcggat cagaatcaga atcatccttc attgacttca 240  
cttgnggatt acttcattgg acctggttta gatcttttgc ttcagcantt ggctgagant 300  
gntcnaata ggcaacggac tccacctgct cgtaaagaan ctgttgaagc tttaccaacg 360  
gttaanataa tnggaagctt tgcaatgttc tgttttgttt ggatcaantt tgagaaaagg 420  
tacgggaanc cta 433

<210> 2197

<211> 480

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-055-Q1-E1-F5

<400> 2197

ctgttnccgc tgccggtaac ggtccaaaat tcccgggtcg acccacgcgt ccggcagctt 60  
cctgttcaac gaatgctcga tttcgacttt ctctgtggac gtgaaacgcc ttctgttgct 120  
ggaatcataa atcctgggtc tgaaggtttt caaaagctct ttttcgggca ggaggaaatc 180  
gctatccctg ttcattgccgc cattgaggca gcttgtgctg cgcattccaa acgggatgta 240  
ttcatcaact ttgcatcttt taggagtgtc gctgcttcat ccatggctgc tttgaagcag 300  
ccgactatta aagttgtggc aattatagct gaaggtgttc cagaatcaga cactaancag 360  
ctgattgcgt atgctccgtg caaacaataa ggttgttatt ggaccggcta cngttggagg 420  
tattcaagct ggagccttta agattggtga tactgcagga acaatttgat aacattatcc 480

<210> 2198

<211> 440

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-055-Q1-E1-F9

<400> 2198

acgcgtccgc ccacgcgtcc ggttggtggt gaacctgctc ttcctagaac tgagattgtg 60  
aggcaattgt gggcttatat aaggaagaat aaccttcaag acccgagtaa caagcggaag 120  
atcatctgtg atgatgcgtt gcgtgtggtt tttgagactg attgcactga catgttcaag 180  
atgaataagt tgcttgctaa gcatattctc ccgcttgatc catcaaagga ctctgggtcaa 240  
gcaaaaaagg caaaaactga ggtgggagact aagactgaga ccacccgagn ctattagttc 300  
aactgctatt aagttcaact gttacattat ctgagccact ttggtaangt tccttggcac 360  
tggtgaagaa ngganatggn aagacganag angattaant cgcccgtggt ttggggaata 420  
cnttagagct caacaatttt 440

<210> 2199

<211> 487

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-055-Q1-E1-G2

<400> 2199

acgccggccg gtagccgtcc anaattcang ggtagacca cgcggtccgca aaaacacaca 60  
aatggaagga agagtcaacg ctctgtcaaa cataaacgat ctggaacttc acaatttctt 120  
ggtagatcca aacttcgatc agttcataaa cctcataaga ggagatcatc aaaccattga 180  
cgaaaacca gttcttgatt tcgatcttgg nccattacaa aacagcccct gtttcataga 240  
cgagaaccag ttcattccaa cacctgtcga tgacctcttc gacgaattgc ctgacttaga 300  
ctccaacggt gctgaatcat tccgtagctt cgacggtgat agtggttanag ccggtggtga 360  
agaagatgaa gaaagattac aacnacggtg atgattcttc agccaactac tacgaataat 420  
gattgggacc ccgtnaagac gaagactgat ncggtccaag gacnttgatc tctgagaaga 480  
angaaag 487

<210> 2200

<211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-055-Q1-E1-G7

<400> 2200

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aattcttcga atctgaaatc cgatcgggct cgcttggtct gatttcgtga gggatgaacat 60
ggatggaaac aaagacgatg cgttgaagtg cttgaaaatc tgcaaaagtg ctatggaagc 120
tggagatcga cctcgcgctt tgaaattcct ggctaaagct cgtcgtcttg atccaaatct 180
cccgatcgat gatctcgtat ctgagcttaa caacaacaaa tcagacgaac caggatctgc 240
aaaatcgctt ggatctgcag cagcaaagga ttcttccaat tcttcagatc ggccttcttt 300
acgtcaacgt ggatcgtcaa caangtcatc gtcttcttcg atgtccnaca ctgaagaaca 360
ggntctcaat cgtngagaan anatanaatc tagaaaggat tantacgaag atcttangtc 420
ctg 423
```

<210> 2201  
 <211> 493  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-055-Q1-E1-C3

<400> 2201

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ttacgccttc ccgtagccgt ccnaaaattc aagggtcgac ccacgcgtcc gtttcaagcg 60
aaggaacggt gggaggaaca agcacaacag aggacacgtc aaccaatca gatgctccaa 120
ctgcggcaaa tgctgcccta angacaaggc cattaagagg ttcatgtga ggaacattgt 180
ggagcaggct gctattagag atgttcagga agctagcgtc tatgagggat acacattgcc 240
gaagctatat gcaaagacgc aatactgtgt ctctgtgct atccactctc acgtcgttag 300
agtccgttcc cgcaccaacc gtaggggttcg tactcctcct ccacgtttca ccaagacgca 360
aggaggatac tccaagccc tgggacaagc cangacangc ccctcgtcca gctgggcctt 420
ggagcttgca gctgcaaccg cgtgtctgaa gcctgcaatc anccttaa at tgtagtttca 480
ttttttcaag gat 493
```

<210> 2202  
 <211> 371  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-054-Q1-E2-D12

<400> 2202

acctgaatct caccgtgagg atgaagttac gagttttgct gtggtcaatc caagtgggag 60  
 ggatctagag aatggtgtga acagtgaaag tcaagcttat actattgcaa ctggtcaagc 120  
 tgatggctct ttaaaacttt ggagaantag ttttcaggaa agttcaacac cttccggtct 180  
 gtgggagcta gttggcatgc ttacggttgg ccaaaatcct gtcagtgcta natctctgac 240  
 tgattcggga cacangatag cagccctctg tacagagagt cattcaanag ctgcccgcgc 300  
 agttagtana tngganattg tacaccttat agattcaggg gttttcatac nagaggatga 360  
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<210> 2203  
 <211> 393  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-054-Q1-E2-E6

<400> 2203

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 accacctcaa attcttcata aacaaatcca cttctgcatg gttgggagaa tctgttagag 180  
 aatttttgtt gttgttgggt tcagatttgg aaaatttccct ttttttcgag tttcttctga 240  
 attattcatc gtggagattc tcggatcggg aagggtcgcg agaggtgggt ttcacggcgc 300  
 ggatagattc atcttctgtc ttctcctgag ggggtagccg aggctccggc ctengcggtt 360  
 tttaaانccc gacctttaaa aattnctggg gaa 393

<210> 2204  
 <211> 403  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-054-Q1-E2-E8

<400> 2204

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ccaaagcttg agactttatt gaatcaccat aannnnnnnn nnnnnnnnnn nnnnnnnnnn 120

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnncgaa gaacaataga 180

accagacgag gtttgatcca aaaagctcgt tgtgagctct ctgcttcttc tgattctgcg 240

tctaatagcag ctagcatctc tgctcttgaa caactcaaga actctgcagc tgatcgatat 300

acaaaggaaa gaagcagtat tgttgatgatt ggacttaagt attcacacaa gctcctgttg 360

agaagcgtga agaagcttgc tatacctgaa nctgaatggc caa 403

<210> 2205

<211> 413

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-054-Q1-E2-F12

<400> 2205

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ctgcacgaca tctcaaacia aaccaatcaa taaaaacaag aaacaatctt ctttctcatg 120

gacagatctc aagaacacta tgccaatggt gaccagaact tagaagcaaa ctttatagat 180

catgaggtgg taactgaatc atcatcatca gctgtgcctc aaaccgagaa ctataaaagg 240

tggcttcgtg tctccatana ccgtaatctt tgtcctcttt tgccagccac tancatcaan 300

tctgggtaga ttgtactatg aaaatggagg aantagcana tangtggtaa cacttcatca 360

gctcaattgg gcttcctgt acngggttct gttcggcttc tggtcgtctna agc 413

<210> 2206

<211> 394

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-054-Q1-E2-F6

<400> 2206

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aatgcttgaa cgcaaagcgg gttcttcaga gactgcgtgg tcgcgaagat gtgtctggtg 120

agatggcttt gttggttgag ggtcttgnaa ttggaggtga aacaaccata tgaggaatat 180

ataattggtc ccgcggatga agttactgat gatcatgata tagctgtgga taaggatcaa 240

attaagttat atggtgcaga agaagggcng aagttgggtt gctaggccag tcaaaggang 300

aagcactatg agtgttttgt ctgccatgg gaagtacaat gagcaggaag caaggctcaa 360

tgattgatcc tctgtcaca actgtntggg gaag 394

<210> 2207

<211> 446

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-054-Q1-E2-G9

<400> 2207

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ggttcgaatt acaggaatgg ctgtgtcac tattgttttc gctgcacttg gattcatgtc 180

gcctgcctca agaggaatgc tactaaccgg gatgattatt ctctatcttt tcttgggtat 240

tgttgctggg tacgctgggtg ttcggctctg gagaactgtc aaggggactt cacaaggatg 300

gagatcactt tcttgggtcca ttgcatgctt cttcccgggt attgcttttg ttatacnac 360

ngtgttnaac ttccttcnct ggagcagcat cagtactggg gccatcncaa nctcnttgta 420

tttnaactct tgggnctccg gttctg 446

<210> 2208

<211> 431

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-054-Q1-E2-H12

<400> 2208

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 tcggaagata atgtancaat ttcgagtgcac ggcggagatt tgaagaattc tctgtccggt 180  
 attgtgggaa atcaagtgga ggagctattg agcagataat gagaacaaag gtttgcttga 240  
 tgggtctggaa aaagcttcgt tgagagtgga gattgcgaan agagagctcg angatntaga 300  
 gagacnngaa attgaggcga aattgcnaca gggattatan nantcagctc ngaatcaatg 360  
 aaccgccana gganttgccg naaattgccc aagcagggag natngacngc agcaaaggtt 420  
 caatnggggtt g 431

<210> 2209  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-054-Q1-E2-H5  
 <400> 2209

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 gatacaacag ataccaatat gatgcagaga gtttaattctt cttctggtac atcgtcttct 120  
 tcgatcccta aacacaatct tcacttgaat cctgctctta tccgctctca ccatcacttc 180  
 cgtcaccctt tcaccggagc tcctccaccg ccgattccac ccatttctcc ttactctcag 240  
 atccccggcga ctttacaacc tatgacattc tcgctctatg tcgcaaccgt cttctttctt 300  
 ctcccttgat tcattgccgc cgtaaatecc ttctgctccg tcggtttcgg tgcggtgga 360  
 ggataaaacg gtgcccggat ttagtccttt gttgnccttc g 401

<210> 2210  
 <211> 370  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-054-Q1-E2-H7  
 <400> 2210

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catcgggaat ataaccataa tctccacgag ctgcttgaat gcgtaccctt cgttccctaa 120  
 tgttggcggc ggctctagca gtggctttgg ncgtgaactgg ttttgcagca tcgccgttac 180  
 cttcggcnta ngcgaaatac gcagctggtc cgaccaagat tcttccttta caaanggctt 240  
 ttcctctaga ccaagctaata ggagctgagt gaacttanag cgcgtgatcg tgtcagacac 300  
 gcgcgaatct tactcggcgg tggctgctcan agcncgtgtg gcgggntcgt cgacttccca 360  
 gttcanggct 370

<210> 2211  
 <211> 485  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-055-Q1-E1-A2  
 <400> 2211

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 tcttactctt cttcactcta aatcccttct ctgaacctct tcgtttgctg tatgtgttga 120  
 tttcacttct ctctgagcaa gaagctttcg cgtgagagaa tgacgaaggt ctatggaact 180  
 ggcacgtacg acttcaagcg ccacagagtg gcggagtatc cattggagtt acctagccat 240  
 cctgctgaga agcctctaga gtcaaagcct ggatctaatt tgccgagctc catcacttta 300  
 tcggagattc agcaagatag gttaacgaaa atcgctgang agagctggat taagactgga 360  
 ggtaagctcc ctgagaaacc gttcgattcg gaggttgtga aggagattta tgtgacggag 420  
 cttaaggtaa ctaatggtcg taaacctgtt tcacttcaac gagttatgaa tcctgggaag 480  
 tgaan 485

<210> 2212  
 <211> 473  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-055-Q1-E1-A3  
 <400> 2212

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ttcgatttct ctgcaaagac acaacacaaa aagtgcctttt tttaatcaga tattttcttg 120  
gcttcacttt aactctcttc gtgcttggtt ttccgatctt agtcgttact aattgagtcg 180  
gagactgttc atttcttgat tctgaagaaa gttttggaga aggagaagat gtcaactctg 240  
cgagtgcgct aggggttagt gtgttttccg atttttgagc tcttggggat tgttgttttc 300  
tcttaaagag tgcattttga atggcgggtg agtatgtatg ttgcagccca aacttcttta 360  
tacatatagc tgtgattgtg tttcttgtct tgttcgctgg actcatgtcc gggcttaaca 420  
ttgggtccta ngtccttgag tcncttgat cttgaaagtt ctgcctaaaa ccc 473

<210> 2213  
<211> 433  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-055-Q1-E1-A9

<400> 2213

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aagagaagtg gagaagatgg tgttgagtgc tgtgttttgg aagaaggttc agtatgtttt 120  
gaaatcggtt gatccggtga tgcagggtgat tcacatgatc aatgatgggtg gcgatagact 180  
atctatgcca tatgcttacg gttacatgtg ctgtgcgaaa atggcgatca agtctattca 240  
tagcgatgat gcaaggaaat acggaccgtt ttggcgggtg atagaatacc gttggaaccc 300  
attgtttcat catcctcttc ctatgttggc tgcataattt ccttcaaccc gggcaatata 360  
aantaaccgt cctgaattt tannggcgtc ctggaaggtt ttnccttgg agtttaacca 420  
aatgcaatgg ntt 433

<210> 2214  
<211> 491  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-055-Q1-E1-B4

<400> 2214

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ctctgattaa ctaaaacgca cacaacaag aaaaaaagct nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnntcga gacaaacatt 180  
 tcacattccc agagattgtg gtgtcgttgg gtacttactt cttaggggtga ttcaggactt 240  
 gctaattata ggcaaaaaat ggttttgggt ttaagctcaa agaacagaag atgctcatcg 300  
 gtacaagttt ttacctgate cacattcatg acatcaagcc ttggcctcct tctcagtccc 360  
 ttgatctcc tccgctctgt tggtatccaa tgggagaatg gtgaccgcaa ttcttggtac 420  
 caacttctgt tggtgccent cctcttgggt tccgtcaatt ggcgaaaggc aaaatccgag 480  
 ttcaacgaat c 491

<210> 2215  
 <211> 399  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-055-Q1-E1-B9

<400> 2215

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 cgccgtctac atgctaagca tcttcgacat ttacttcaaa acgcccatag tccacgggat 180  
 ggatcctgtg cctccgagat tctctgagcc gccggctaag cgacttggtc ttctcatctc 240  
 ggatggttta cgtgctgaca aattctttga gccggacgan gaaggcaa at acagagcacc 300  
 cttcttgagg natatcataa agaatcaggg ggcgttgggg gtgtctcttc aatgcctcgt 360  
 cctcctaaca ggantctana acttgncaa tggttgcta 399

<210> 2216  
 <211> 481  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-054-Q1-E2-C9

<400> 2216

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aagaagctcg aagatcgacg atgaccagaa actacgtgcg tttttacgac aagagaatct 120  
 ctcaagaagt cagtggagat gctttgggcg aggagttcaa aggatacggt ttcaagatca 180  
 aggggtggtg cnataagcaa ggtttcccaa tgaagcaggg agttttgact ccaggccgtg 240  
 ttgcgctttt gcttcaccga ggaactcctt gcttcaagag gacatggaag gagaactggt 300  
 gagaggagaa gaaagtctgt tcgtggttgc attgtgagcc ctgatctctc tgttccgaac 360  
 cttgtcattg tgaaagaagg ggtgagaacg attctcctgg gcttacgant cctgagaagc 420  
 ccaagaatgn nagggaccna ngagaagcct cccaagattc ngtaancggt taacccccaa 480  
 g 481

<210> 2217  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-055-Q1-E1-C12

<400> 2217

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 agaagacggt agagttggag ctaacaagtt cccggagaga caaccaatcg gaacatcagc 120  
 tcagagtgc aaggactaca aggaaccacc accagctccg tttttcgaac ctggtgagct 180  
 ttcttcatgg tctttttgga gagctgggat ngctganttc atcgctacnt ttctctttct 240  
 ctacancact gtcttgactg ttatggggan gtgaaaangt caccgaacat gtgtgcttcc 300  
 gtcgggatcc nnagggaatc acttgggctt tcggttggtg tgatanttgn cttagtcnac 360  
 tgtnncgctg gtanctccgg gtggganaca tcaacccaag cggttacntt ttg 413

<210> 2218  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-053-Q1-E1-D11

<400> 2218

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gcaatggtga taaagatgcc aatacttatg atactgattt catcaatggt gatgacgatg 120  
 gtcgagtctt cgagatcagt taataatggt catgaacgatt ctgagatctt acgaagacac 180  
 ttgtcacta atggcctcgg agtcactcct cccatggggg ggaatagctg gaaccatttt 240  
 agctgcaaca tagatganaa aatgatcaaa gaaactgctg atgctttggt taccactggc 300  
 ctctctaagc ttgntacan ctatgttaan atcgatgatt gctgggctga aatttctcgt 360  
 gacagcangg gaagtctggt gccaaangaa gtcanccttc ccttctggaa ttaanggcg 419

<210> 2219  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-053-Q1-E1-D8

<400> 2219

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 ccactctcat gggaagcgcg tgtgtccag acgctggctc aagaccaggc ccgtctccag 120  
 tacctgagca gcctcgtcgc cgggagatct gtantcccca ttgcctcagg gcgtcaaattg 180  
 ttgcaaagca ctanatacat tgtcnnggct ttgatcggtg ctccgggtca gccgctgctc 240  
 ctagccatgg acacgagcag tgacgtggct tggattcctt gctccggctg cgttggctgt 300  
 ccntctaaca cggccttttc cctgntaag tctacatcct tcaaggaacg ttagctgcan 360  
 gcgctcctca gtgnanngca ggtaccaaac cncacgtggt ggagca 406

<210> 2220  
 <211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-053-Q1-E1-E12

<400> 2220

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 cggagcgtgt tcaaagtcaa ttagagtcaa tgaatttatc tcaacctagc gaagtctctg 180

atggtagcca caccgaattt agcgggtggcg gcgatgataa tgatgatgag gttgcatcgg 240  
ctaacgggaa cgaaggcgga gtttagcaatg gaggtttatt gcgtgaaggt gtggcgggaa 300  
ctagcggagg agaggttttg ttaagggcgg aaaatccggt ggaaatggna agcangttga 360  
aggaaccacn cgaagtccgg actagtagnc ggttacgaat ggaga 405

<210> 2221  
<211> 466  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-053-Q1-E1-F4

<400> 2221

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gatgccgtga tattgcagca gtcccttaag cttggtaaag gcggatcaac agctgtaacg 180  
ggaattctaa ttgatggtaa aaagctagtt gttgctaattg ttggagactc cagagcagtg 240  
atgtctaaga atggtgttgc gcatcagcta tctgtcgatc atgaaccaag caaggagaaa 300  
aaagaaatag agagccgagg tggctttgtg tcaaattatc caaggggatg ttccacgagt 360  
ggatggacaa gttagcggtt gcaagagcat ttggagataa nagcttaaag ttacatctga 420  
gctcagaacc ggacataaca caccaagaca attgatgatc aactg 466

<210> 2222  
<211> 394  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-053-Q1-E1-F9

<400> 2222

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tcatcacttg ttttgttttt gaagaaacac acataaagtt tgtcttttta cttctcaaat 180  
ttggttgttt tcaactcaatt tcaatcttgc tttctgattc agantctggg ttttcttcag 240

aattcccaga gaagttgttg gaattgaatt tttcactttt ttgttcataa aagttctagt 300  
 ctttttagat gaacatggga caaggaanca gagcaaance taaattantt acctttgggt 360  
 caagagcgat ccctttggca atggcaatga ngga 394

<210> 2223  
 <211> 476  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-053-Q1-E1-G3  
 <400> 2223

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 tggagaacaa atgggttaaag gtgggtcaaa aaggagctgg tcctggggct agaagctcac 180  
 atgccatgac cgtcgttggg aacaaagttt actgttttgg tgggtgagctt aagccaacga 240  
 tccatattga taacgatctt tacgttttcg atcttgagac tcaagaatgg tcgatagctc 300  
 ctgcgaccgg agaggctcct tccccctggg tttgggtgtc cgatgggnaa cgatcggttc 360  
 aacnatctat gtctacngtg ggccgtgacc nagaaacggn gatacaaacg gncttcattt 420  
 cgtaatgata ctgaggacca attagtggna attgggtggc tcctgttgaa ggaagg 476

<210> 2224  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-053-Q1-E1-G4  
 <400> 2224

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 tctcctcttc aattttcttg tgaaatggaa gtttcagtga ttggaaatcc tcaagcgagg 180  
 atctgcagag cagaattagc ttacagagag cttggattta gatttggctc tgatgtaatc 240  
 tccggtgaat cgagaaatag ggtagtttc tgcaaccaa gctctaaatg gaaagagatc 300

gcgatacggtt gctcttcgag atctgtcaaa tgtgaagcca tcgtctccga tgacgcttct 360  
ccgtttctca aatccactcc aaaatctaaa tcgctcgaga gtgtaaaatt att 413

<210> 2225  
<211> 349  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-053-Q1-E1-G5

<400> 2225

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tcgggtcatat gttggctggg attttgagga agaacgggtg tgatgatcag gggattaact 120  
tcgatactgg agctanaact gctttanctt tcgttacggt acgtgctgat ggagatcgtg 180  
agtttatgtt ttaccgcaat cctagcgccg anatgcttct tcgtcctgat gaactcaatc 240  
tcgacctcat cangatccgc caaagtgttt cactatggat caataagttt gatagtggga 300  
gccgtggtan gtcagctcat ttgaaggcca tggaagtggc gaaagangc 349

<210> 2226  
<211> 428  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-053-Q1-E1-H4

<400> 2226

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tcactcgtgt tttactttta ttgttcgttt tcttggtttt tttctcataa atggnaacga 180  
gtcaacgcgg tcgaaccggt tttggagctg gtaaaaggct ttgaagctaa accggactcg 240  
tcnategact cgttccaagc ctctcctcac tgactcaaac gggnaacttt tcantcgggt 300  
tctaaggggt aaacgggtca ccgttntctc tcncnccgnc acgcanccaa atttaaacng 360  
atcnacnaat gggttctcga accggannng ctcangetan gcgggggtct cagaanacga 420  
aaactcct 428

<210> 2227  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-053-Q1-E1-H5  
  
 <400> 2227  
  
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 cacggctccg tgtttgatcc agatgacgcc cttagatgca atggttctat ctgtttcttc 180  
 ttgacatcac tcataatgtc tggattctgc atcatcgctt gcatgttgag tatgattctt 240  
 gtgcgtcgta ccaantctgt ctacactcat ctctatggca agaccgcac ctaagatctc 300  
 tgttcccttt tatannatna tcgtgcncag cttcttantic tttggggtn ntgcgtcana 360  
 tctangatcc aanatggttt tccgtctccn gtanccgatt tttttggctt ggttcctggt 420  
 anc 423

<210> 2228  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-054-Q1-E1-B8  
  
 <400> 2228  
  
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 cagaattcac atgggttttg tctaaaaatc ataaaaatca tatcttttta cggatttgaa 180  
 gatgaatcag aattcctctg ttgcggaggc gacgcttcag ctttaattccg gtgaaaaacc 240  
 atcgccggga tcgattccgt ttatctcttc tgggtcaacac ggaaacataa gcacntcagc 300  
 gacgagttcg acaagcacia gctcaggtaa gtgctcntgc cgtagttaaa tccgccggtg 360  
 aanaaancaa ctnaagatcg ggcataantaa agtcgatggt cgtggacggc gaattcgtat 420  
 gcc 423



<210> 2229  
 <211> 372  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-054-Q1-E1-E5

<400> 2229

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tcgacctgga agaatcagaa natgagatcg aagatattca gaaggaaatt tcagtattgt  180
cacaatgtcg ttgcccataat atcaccgaat actanggttc ttaccttcac cagaccaagt  240
tgtggatcat canggaatat atggccggtg ggctctgttg ctgatnttcn tcantctaata  300
aatccgttgg agtгнаacag caatcgcnct gtatcacacg cnatttgcgt tcagcngggt  360
ggaatattcc gc                                                             372
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<210> 2230  
 <211> 459  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-054-Q1-E2-A1

<400> 2230

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cggcacagtg tccggnactc ncggttcgac ccacgcgtcc nacataatgt ctgcgaaaga   60
tcgaggaatc ggaagcagag gcggtgatcg gaatcgaatc ggaccaccgc ctctgccggt  120
agccttgctg tcgtctactg aatttggcga taacgcggtg tcgtcgcggt ggacgtcgtg  180
gcttgttccg atgttcggtg tggctaactg tgcggttttc gtcgtggcga tgttcgttaa  240
taactgtccg aatcatttcg agtctcaccg tctcagaggt cactgtgtcg ccaagtttct  300
cggtagactc tcctttgagc ctctccgaac taatcctctc tttgggtccat cttctcacac  360
attggagaag ttaggagcac ttgagtggag cananttggt ggagaagaag gaacgttggc  420
gtcncctgga catgtatant gggtncacgc ggggtgtta                               459
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<210> 2231

<211> 383  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-054-Q1-E2-A2

<400> 2231

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caagctaaaa atctcataga tcagagtcgt cgtcgtcaac ttcacatca caaaaatctc 60
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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnn nnccgttact 180
cttgacacca tcaaccccaa gggtatcaaa tgtgagtatg ctgtccgtgg agaaattgtc 240
aacattgctc agaaattgca agaagatttg aagactaaca aggacgctta tccctttgat 300
gagattatcn actgtaatat ncggaatcc ncaatctctt ggncaacagc ctatagnatt 360
cctcagaaga ggttctctggc ntt 383
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<210> 2232  
 <211> 404  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-053-Q1-E1-D10

<400> 2232

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actctgttct gtggagaaac actagtttta cattcgagag tttggaaaag ttattattat 120
ggtaagtcaa tcagctggtc aaacaagatt tcgaacattc aagtacgaga acaacggaga 180
ctcnagcaga ncaacaattg tagtgagagt tattgcttgc ttccaaccga nggatanttg 240
tcaggctgaa tacttnagac atatactcaa accagtgacg tagttggttt gtgagcttgt 300
gtttgtatth ttggagctgg nacctttttt cnttntgtct ctactttctt atacgantgt 360
ttcaagaaag aatcaanaag tgtngcgttc cacacattng gggc 404
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<210> 2233  
 <211> 396  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-054-Q1-E2-C7

<400> 2233

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 atttttcgtg gataagaaga taaagttatt gtttattgat aagttttctg ctgggaagtt 180  
 gcaacttttt ctagatttag gacgttacaa atttcaatca tgagtgcac atgggcagat 240  
 gtggctgatt cagagaaggc cgtttctcag tcaaagcctc cttatgttcc cccacaccta 300  
 cggaacaggc catcagagcc tgttgctgct cctttgccan anaatgatca tgcagggtat 360  
 ggtggtcaac cagctgggtc tcngttgggc tcctcc 396

<210> 2234  
 <211> 490  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-G5

<400> 2234

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 agaggcagat ctgttattct ctgttgaagt ctgattgac tgatcggagc tattgcggag 120  
 gaggggttta ctgcaattgc acggtggtaa tggctgcggt tccgcctnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnccacgtct caaatatcan aggatgggtg 300  
 gcaacgttcc tgcgttgcta tctaacgatg ctgcttctcg catcgtgtt gctgcgagga 360  
 tgatcgcgt tggtacgcac gacggtaccg tgcgtatcct cgatttattg ngggaatcag 420  
 gttaaagaat ttcgtgceca cactgctccg gttaatgaca tcaactttga cactnaggga 480  
 gagtatatcc 490

<210> 2235  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-G6

<400> 2235

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 caatctccat cacagccaca ttctgagcct ccgtcacagc taccttttga gcctccggta 180  
 gagtcacat tcttccctcc gtcacagcca ccaatatctg tgccaccgtc acagccacct 240  
 tctttgcctc cgtcacagtc tcagtcacct tctctcgctt gcaagtcaac tccataacct 300  
 aagctttgcc gtaagatcct caacgctgtc aaatcctcac cgtcagatcc ttaccgttac 360  
 ggcaaattca ctannagca atgcctcaag caagcaagcc gtctaggcca aagtcatcac 420  
 cagttacnc 429

<210> 2236  
 <211> 439  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-H12

<400> 2236

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 tttccggcgg tggaaactca cggaggacag ttcataagtt acgatatctt cggtagttta 180  
 ttcgagatca catctaagta tcgtcctccg attataccaa ttggtcgtgg agcttatgga 240  
 atcgtttgct cngtggttga tacggagacg aacgagctan tagcgatgaa gaagatagct 300  
 aatgcttttg ataatcatat ggatgctaag cgtacgcttc gtgagatcaa gcttcttcgn 360  
 catcttgatc atgaaaacat tatagctata agagatgttg ttccaccacc actaagaaga 420  
 cagttcangt gaggtttat 439

<210> 2237  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-051-Q1-E1-H7

<400> 2237

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catgcacagg ggatggaaat gcaatgggtg cacggggccgg tcttccactg cangacttgg 120  
agtttgttca attccatcca actggtatat atggggccgg atgtctcatc accgaaggat 180  
ctcaagggtga aggtggtatc cttanaaaca gtgaagggtga acgttttatg gaacgatatg 240  
ctcctacagc caaggatctt gcatcaagag atgttgtctc cagatccatg actatggaaa 300  
tcagggaagg tcgtggtgta ngaccgcata aggatcatat ctatctccat ctgaatcatc 360  
ttcctccaag angttctaaa agaaaggctt cctggaaatc tctgagaccg ctgccatccn 420  
ttgctggt 428

<210> 2238  
<211> 428  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-052-Q1-E1-A1

<400> 2238

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cattatgatg tctacatcaa tggttggtgg tctcgccccg gggttatggag tttacgcagc 180  
atcaaaggcc gcctttgaga caatggtgaa agtggtggcg aaggagctta agggaagccg 240  
gataaccgcg aattgcgtgg cgccagggcc gggtgcgacg gagatgtttt atgctggaaa 300  
gagtgatgaa acggtgaaaa tgcttgacgg ggcttgctct atggggagga tcggtgagtc 360  
aaaggatata accganattg taagggtttt ggccccgtta aggggggggaa aggggnntaa 420  
acggccaa 428

<210> 2239  
<211> 406  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-052-Q1-E1-A11

<400> 2239

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atgggagaaa tgggcccaga tattccctac gagacgcagt tcttattggt cgagagcaac 180  
gatgggtccc accttgantc tgacggagct aacgngtctn agtgtaacca gaaagtttac 240  
accgttttct tgccgttaat cgaaggatct ttccgttcgt gtctccaagg aaacgttaac 300  
gatgagggtg agctctgttt ggagagtggg gacgttggac actaaacggt cgtcgtttac 360  
tcactctctg tatattcacg ccggtacaga ttcgtttcag acaata 406

<210> 2240  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-052-Q1-E1-A2

<400> 2240

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tcttgatcc acaaactcaa gctcancagg cgcggttact agcaactttg gcccttggtg 180  
atcttttcca gaatgaagct cttgctanaa gcaccgatgc agcttctgct tgccgtgctt 240  
tagtcaatgt ccttgaagaa caaccacag aagaaatgaa agtagttgct atatgtgctc 300  
tgcaaaatct cgtcatgtat agccgatcta acaaaagagc agttgccgag gcaagtgggtg 360  
tgcaggtcgt cntggatctg atcaattcca nngatcctga aacgtccggt caagg 415

<210> 2241  
<211> 482  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-052-Q1-E1-A3

<400> 2241

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 gattcgaaga aggaagtatc tactagaagt cttcaactgg tataatctcag agcaatggaa 180  
 acacaattaa ggtttttgct aggaaatgtt aaattgggaa gtcataagcg gcatcagata 240  
 tggttcttga agaagtttct tttgggtccg gagaaagaaa cacttttgat agatatagt 300  
 agattcggtt gctgtgttat tcatccaact aacgaaatca tcagatcaga gatcatgcc 360  
 agatgggcta ttataggttg gcttttgaa ctgtgttagc aaaatcatca catcgagcga 420  
 agcgttatgc tggctctgtt ttacgactgg ctctccttg accaaagaat ccataanatt 480  
 tt 482

<210> 2242  
 <211> 487  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-052-Q1-E1-A4  
 <400> 2242

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 aatgtgacag ttactacact tgcctgana gcaacacttg ttgttgtctg tttgagtatg 180  
 gcaagtattg ctttgcttgg ggatgttgcc cactagaagc agccacttgc tgtgatgaca 240  
 actatagttg ctgccctcac gagtaccggg tttgtgacct tgatcaagga acctgtttat 300  
 tgagcaagaa cagtccantt aatgntaang ggcntaaagc cttaanccgc aatnccantc 360  
 cggncacaca gggcaaaagt acatttcnaa aacatttggc tctctcaaaa nnggactcgg 420  
 ggtcacaggg agaaaagatt tcncccctaa ggggnttttc caaggngttt taaaggggtn 480  
 gtgttta 487

<210> 2243  
 <211> 449  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-052-Q1-E1-A5

<400> 2243

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cttccttctc cttcacccgc gcgtcacgcc gctccatgta gctacctctt cggccgcgctc 180  
gccgagtatg cgacctcttc accggcaagc tctgctgcgc catcctctgc tcttgctaag 240  
gatgagggga aaaagaccta tgattacggg ggcaaagggt cgatcggggc tgtttgtcag 300  
gtcatcgggt ccattgtcga tgtgagattc gaggatcagg aaggattgcc tccgatcatg 360  
acatctcttg aggttcagga tcatccaca aggtcgggtc ttgaggtgtc tcatcatttg 420  
ggtcaaaatg tcgttaggac cattgctat 449

<210> 2244  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-052-Q1-E1-A7

<400> 2244

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gctggtgctt agaggaagat acgtgttgct gatttcaatt tgcttcacaca atgttgcttc 180  
aactacaagt tgtaaagct tgattctttt tgggacatga gcatgtgact tatgaaagtt 240  
ttaagtcttt atttgtgatt tgagctggct aagagaagac tcttgtctct gtttgatagt 300  
agtcatgggtg atcattctcc tattgggtctt ctttggttgg tcttctgtga gcccaaccatg 360  
tcatcccaac gacttatctg cgctccggga attggcagga gcgttgaaga acaagtct 418

<210> 2245  
<211> 475  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-052-Q1-E1-B3



<400> 2245

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gatgctaaag gaatacttag cttgtatgaa gcggcacact tgggaacaac gacagattat 180

atattggacg aagcggtgaa gtttacatcg agccacttga agtctttatt ggcaggaggg 240

acgtgccggc ctcatatctt aaggcttata agaaacacac tttatttacc tcaacgttgg 300

aatatggaag cagtaattgc aagggaatac atttcgttct atgaacaaga agaagatcac 360

gataagatgc tactcagatt agccaagctc aatttcaagt tattgcagct gcattacatt 420

aaagaactga aatcntttat caaatggtgg atggagctaa ggcctaaatc caant 475

<210> 2246

<211> 479

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-052-Q1-E1-B4

<400> 2246

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atgtgttttt gggtccttct cgtcgtantc ttgaacatag ntgaaaagga cccaaaanca 180

catgatggaa tggatttgag ganagttaca actaaggatt tgantgcnaa attcgggtctt 240

aaanaanata ctantgactt tatnggtcat gcagtggcac ttcactgtna tgacaatcat 300

ctccatcaac ctgcctatga tacngtaatg agaatagaagc tctacgcaga gtcccttgca 360

cgttttcann gaggttcacc atatatctat cctctctatg ggttgggaga attgcctcag 420

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<210> 2247

<211> 405

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-052-Q1-E1-B8

<400> 2247

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aatgggtgatt ttataagcca ttggcanaat ttgcagtatg gccgctcttg ccagaattct 180

caacatccgc ctgtgttgta nctgtctcct gttgtagtgc cacctgctta tctccagggg 240

cgtttaccat gggatgggcc tagnaagacct ctggcttaca ccaatgctgt gaatcaactc 300

atgacctacg gacctcgtct tgtaccgggt gtcctgtac aacctgtttc aaccaggcca 360

cccaacattt aacctcgtta cgctatgaaa atcccagata tcnaa 405

<210> 2248

<211> 425

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-051-Q1-E1-F8

<400> 2248

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gatgctggat atggtggacg cgggtgcctct ggcggaggtta gttacggcgg acgcggtggt 180

tacggtggag gcggtggtan aggaaatcga ggcggtggag gtggtggata tcaangaggt 240

gatcgcggtg gaagaggaan tggcggcgga ggcagagatg gagattggcg ttgtcccaac 300

cccagttgtg ggaacntgaa ctttgcaacg agagttgant gtaacaagtg tggatgcactt 360

gtccttctg gtactagttc tgggtgcta at gatcntggac gtggtggcta taaccgaac 420

gtgga 425

<210> 2249

<211> 455

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-051-Q1-E1-C4

<400> 2249

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 nnnnnnnnnn nnnnnnaaaa ccctaatttc tctttttctt ctctgatcaa aattggtttc 180  
 gaaaaggagg gagagtgaag gatatacata catacacacg aaaggggttt aagatgtctc 240  
 ttccgctact ggagtgtgag tacgtgacgg aggagtttgt tcgtgaaggt aagaatggca 300  
 actatggaac caagctgccc agctctgtgc cgatgcttcg tttcctctac gagctctctt 360  
 ggatttttgt tcgtggcgaa ttgccaattc agagctgtaa ggcagtgttg ggaaagtgtg 420  
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<210> 2250  
 <211> 435  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-C6  
  
 <400> 2250

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 cgctcggcgt ttcgatttgg aaccctaagc tatgtggaac aacaacgatg gtatgccctt 180  
 agctcctcct ggtactggcg ggtccatgat gccgccacct cccgctgctc atcctttctta 240  
 cacggcgctt ccgccgcctt ctaatccgac tcctccggtc gagcctactc ctgaggaagc 300  
 ggaggctaag cttgaggaga aggccccgaa atggatgcag ctaaattcca aacgggtacg 360  
 cgacaagagg aagtttggat tcgttgaaac tcaagaaggg aggacatgcc acctgagcac 420  
 gtcaggnaga ttatc 435

<210> 2251  
 <211> 367  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-C9  
  
 <400> 2251

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 cgtttcttcc tctcctgcga tatcaattcg ccggtcactt ttcgtatcga gaagcttgat 180  
 ggaaacctcc ccgtcaagaa atcgtctgat tcgggagttg tctccatcgc agaggagaan 240  
 aaaccagagc ttacattga gtgtgcattg tacattgatg gagctccttt tggccttccc 300  
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 tcagttc 367

<210> 2252  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-D11  
  
 <400> 2252

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 attttagaca aggcttcaga ggttaaggcc ttgctgaaat caggggagag aaattatcta 180  
 cctttttaaag ggaagtctat gtctatgatc tttgcaaaac cttccatgag ggactcgggt 240  
 ttcgtttgag actggttttt tcttgctcgg tggccatcgc ttatatcgag gtcccaatga 300  
 cattcagatg gggtaaagcg ggaaggaaaag ctctgatgt ttgncgtgg tcctttcaac 360  
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<210> 2253  
 <211> 432  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-D12  
  
 <400> 2253

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tectctcgac cctgctgctt tttctgatgc actagttcag atttatctgg ataatgctgg 180  
 tgatctggaa cttgttgcca gnagtttaga gtcactgat ctttaatttct caagatacgg 240  
 tgatattttc tttgagggtt ttttcattgg aggacgtact caaactgggt cagtgaatc 300  
 tgatgaaggg gaacaccacc cttactctat aatcgactgt gaaccaannc cgtngaaagc 360  
 tantttacca tcaattgtat acanacanga aantttttgc ngnggggaaa accctcccta 420  
 agtaagaaac ct 432

<210> 2254  
 <211> 466  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-D8

<400> 2254

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 ggnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nngagtcttg acaaaaccca aattccaagt tcacatcttt tcnagttggt ttcattgttta 240  
 agatttttgg tcccttctga cttggacata gattctattg aggaattgag tacgtaattg 300  
 aaatggatct atgcntgctt tacnagttag ttanaagtca aatctctgaa ttgcttctga 360  
 tnaattgcag aaacagggtca cagggtctgtc tnanatagtt acattgatgg ggttgctcnt 420  
 ggntatcgtg tcacaggaga naagntacag aaattgatgn gacaaa 466

<210> 2255  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-E10

<400> 2255

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tgtcaatctc ttccaggcag ttgctatgt actcattcga ccactgtcta ngaacacata 180  
 cagaaaaatt aaccgggtgg ttgcanaaac cttgtggttg gagcttgtat ggatagttga 240  
 ctggtgggct ggagttaana tccaagtgtt tgctgataat gagaccttca atcgaatggg 300  
 caaagaacat gctcttgtcg ttgtaatca ccgaagtgat attgattggg cttgtgggat 360  
 ggattctggc tcacngtca ggttgccctn gngaaagcgc attaanctgt taagg 415

<210> 2256  
 <211> 481  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-E3

<400> 2256

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 tcaatgcctc cgttaaaatt caatcttcgt ccatctctc accgtgggtg ttctgttccg 180  
 catcgtcgtt gactccccga gcttctcca atattaagag gaaatcgtcg aggtctgatt 240  
 caccatctcc tatattaaac ccagagaaga attaccagg tagagttcga gatgaaagtt 300  
 ccaatctctc tcaaaaaatg gctttcaagg cttttgggtc acccaaaaag gagaaaaaag 360  
 agtctctttc tgattttagt cgagaccaac agactgatcc tgccaagatt cacgatgcat 420  
 cttttctcaa cgctgttgtc aaggtttatt gcactcatat tgctcctgat taatcccctc 480  
 c 481

<210> 2257  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-E6

<400> 2257

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ccattggaag tgtattgtgt tgcaagtgtg gtgttcccat ggcaccaaac gcagccaaca 180  
 tgtgtgtgaa ttgtcttcgt tccgaagtcg atatcancga aggtttacag aanagtattc 240  
 agatcttcta ttgccttgaa tgcacttggt atttacaagc caccaaagga cttggatcaa 300  
 atgtcantgg gaatctaaag agcttttgac attttgtatc aagagggtga agaattctcaa 360  
 taagggttaag ctgaagaacg ctgaattcgt ttggactgag cctcattcna agaggattaa 420  
 ggntaagtt 429

<210> 2258  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-F11

<400> 2258  
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 ttccagatct taaggttttc cacattttat catctgggtc ctctccttaa tgatttgaag 180  
 aactcaatt cctatttgat cggggactag aatttggatt ctgtttcang acaaaagtag 240  
 atttccctgt ctctttcccg ttgtattttc aataagatga atccggagga gcaaaagatg 300  
 gaatctgcat cggatctggg caagctcttc attgggcggg atttcanggg acacagatga 360  
 agaacgactg naaggagtat ttggcaagt attng 395

<210> 2259  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-F2

<400> 2259  
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 aggtgtgcat cttcttgga tcaagctgact ttgcggtcaa tcggatttct tgggattgtt 180

tggagaaaact ttggagggtga tggacaacaa aaatgatcag gatattgatg ttagatcagt 240  
 ggttgaagct gtttccgccg atctttcctt tggngtccc ctctatgtgg ttgagagcat 300  
 gtgcatgcgc tgcnaaggaa aatggnacaa ncagattttn antgacctta attcctcact 360  
 tcagaaaaggt cntaatatct gcanttgaaa tgtccgcatt gcgggggaaa gggataatga 420  
 actttcagtt ncgc 434

<210> 2260  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-F5  
  
 <400> 2260

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 aattcggtga tcaggaggtc gacatgttca ggcttgaagg atgtctgtga actgggaagc 120  
 ttgaggagtt ccattatata cccacagaag tcaaataact caggatttgg ttggcgagat 180  
 ggagactctg atgacctttg tcagaccgat atggatgatc tctgcaacat tgaatcagtc 240  
 anaaacaatg ttttgtcaca gtccaccgat ttaaacaaga gttttaatcc catgtgtgat 300  
 tccacggata actggtcttg caagtttgat gaaagcccaa aagtgatgaa aagcanatct 360  
 aacctgcttt cttaccaagc ntcnaactc ccanactggn nttccatngt gaggancgaa 420  
 accatcttaa catttgceng gg 442

<210> 2261  
 <211> 482  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-C2  
  
 <400> 2261

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 aatgttcctt aatctctctt tttgattagt ccaatctcca ctaatctctg acctcagatc 180



gcttccgacg cegctgaact gtgtccgtct tgatctgtgt ttaggagaaa gcttctaggg 240  
 tttttgtttt ggttgctgag tagaatttgt tggatctgaa acggaaatca aaatgggctt 300  
 tttcaagtac gatactagga ttttgtggat ttgganttgg gatttcattg ggacttgta 360  
 ttggttacgt tctcttcgtc tacttgcctc ccaacgacgt caaggatcct gaaaatccgt 420  
 tcaaatancc tgaccaagat tcccanagct atgcntacgg gntgctccaa gaagaaaact 480  
 cc 482

<210> 2262  
 <211> 458  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-F7

<400> 2262

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 nnnnnnncct ccttttgaaa gatcgaaacg tctccacaac ttctctttgc ctcaactccg 180  
 ttgggggtcaa caaagattcc tcagatgcgt caatctacca tctcctctc cttcttcttc 240  
 ctctcccgat cacgcagcca ccaatagatc cgtctccata gctggaagtt tcncttacnn 300  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360  
 nnnnnnnnnn nnngaagctg cgtgtangtg aacctggcng anagaattga aanttgggng 420  
 ttaaagnang agaaagaagt atcaatccga ntgagtgg 458

<210> 2263  
 <211> 380  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-050-Q1-E1-F8

<400> 2263

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attatctcgt tttccgtttt tagttctttg agtttgggat cgttcaatgg agcccaacgt 180  
 agtggacatc gctactcttc ctgccgcttc ntgctcgaga attcgaacgc caacaaaggc 240  
 tgaaaactcca gaagtgattg atgtggagga atatgatttg caaaacgggt gngttccta 300  
 atgggcaaca atggttgatt atcagaacaa aggggaaagg ctatagangt ttgantccaa 360  
 ggtcttacgn ggtgaccatg 380

<210> 2264  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-050-Q1-E1-F9

<400> 2264

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 cgaagaacat tgccagtatt ttctttacca gatcctccgt ggattgaaat acattcactc 180  
 tgcaaattgtg cttcacaggg atttgaaacc aagtaatctc ctctgaacg caaactgcga 240  
 cctaaaaatc tgcgattttg ggctagctcg agtcacttct gagagtgatt tcatgactga 300  
 atatgttgtc acgagatggg accgtgcacc agagcttctc ttaaactctt ctgattatac 360  
 tgcagctatc gatgtttggg tctgtaggct gtattttcat ggagttaatg ggaccgtaag 420  
 cca 423

<210> 2265  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-050-Q1-E1-G10

<400> 2265

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 ctacttctgt tgctgtttcc ctttggtgca aatccattgn acngactgaa tccttgcgnt 180  
 ttttntcng gttttgncgg tannttatag nacacagcgg ctcttangna tgcttcgata 240

ttcattctaa gagattctga gaccaatctt gctcatgtan tagttantgt tgtattagta 300  
 ncattgattc ttccttcagt ttgatchcca tgaccgtttt ccnaaacatg atgaagtcgc 360  
 tgaggtaggg tatatcggaa ccggtgcatc cccaggtata angggacagg gtngaaacta 420  
 gcgtaggac ccgttgggct cc 442

<210> 2266  
 <211> 494  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-050-Q1-E1-G2  
 <400> 2266

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 tgcgtgctgt ggttccttaa cccagacagc tatgctgata ctcttgagaa gcagaaaact 180  
 attctgcaga atttcttcga gcacatggca atcaagatta ctcggcgata agctttacaa 240  
 aatccgagta gttctcacia tgaacaacgt cagattctca ctcttacagg ttgagaagct 300  
 angccagaga aagcttcttc ttccttggag agtctttcnc acacgattca gaaagctttg 360  
 gtgcattcca agacacatta acaatccaga agcctatgct agtctccaga ccaantctcc 420  
 taatgtcntt aatnccatc cgcctttctg acatcnagtt tggttaactac acctctcttc 480  
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<210> 2267  
 <211> 504  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-050-Q1-E1-G3  
 <400> 2267

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 tatcgtcgac tcttcagcat tataataatc ggatttatat ccgagattat ccgattccgt 180

gtcactcttc taatccaatt tgcaattctt ttaatttcaa aagacgttcg ttctctcctt 240  
 cntcccccaa atttaacgac catgtcggtt acccttcttc ttcttattta tcctccaagc 300  
 tttctccaat tcgaacccat tcctcttttcg ctgctgtgtg ctgctcctgg attcaagaca 360  
 attcaatggt tcatgattat gctacancaa ctaatgggac gtccaagcgt tgctcggcgt 420  
 taccaacaac angacacagt gggatgtctc ntcggtgtca agatcttttt gaattcataa 480  
 ngctccgggt cctctcgtaa aaca 504

<210> 2268  
 <211> 495  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-050-Q1-E1-G4

<400> 2268

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 taaaaatggt gagcccatctt agatctccat gttcttcacc caaaaaatca agaaaagcaa 180  
 gcaagaaccc ttattcaaatt cgtggacttg ataaattctc tgagcttctc tccgagctag 240  
 acgagaagag gcaaagcatc tactcgaaga agctcgattc cgggtggcccg cctcttggtc 300  
 gatttggtgt cacaagctcc ggtgagtgtg tccccgttgt gatcagatca tcttatcttc 360  
 acaagaagaa caagaagacg aaagatgttg tagctgataa agtcaaaaaca gaagtcaagg 420  
 aagcaaanac aagagggaaa tcaagaacac agagcctgaa acaggagcaa aaaacaagag 480  
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<210> 2269  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-050-Q1-E1-G5

<400> 2269

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 cgtcttcagc ttcacggtga agcaccttcc accaccaccg tcactctcct ccgtccagct 180  
 ctogctttcc ccaattcttc tctgcagct ttcctgnaaa cgacttcttc agtccccaaa 240  
 gtaggaccga tctcactcgg aatcaacata gtcaaatcgg aaggcgccgc cgcgttattc 300  
 tcaggagtct ccgctacact tctccgtcag acgttatatt ccaccaccag gatgggtcta 360  
 tacnaantgc ttaagaacaa atggactgat cctgagtcag ggaaanttgn atccngagta 420  
 gggaagatcg gtgcaggg 438

<210> 2270  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-050-Q1-E1-G7  
 <400> 2270

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 ttttcccata atttattggt atgcattaca tatcacagta aacggacttt cagtcaacac 180  
 cgcatttatt tgccctcttc attgtttcac gtacgtaatc aaggaccaag ggattttctt 240  
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 cagctgctta ccggctttgc ccgagcttcg nctgcaggcg gcgccaaaga gaaaggactc 360  
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<210> 2271  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-050-Q1-E1-G9  
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aaaaaacaat tttctgtcta natanatatt aaggatccaa attagggaga gaccaaagag 180  
gaaattaata acaatcaatc caacaacgaa tggagattga agaagcgagt cgtgaaagtg 240  
gacatgttgt gtgcggatca tggattcgtc gcccgaagaa agtaaaantgg gttcttatcg 300  
cnaaagcttc naaacgccgt ggctcatctg tttctctccc tgctctctc aacatcntct 360  
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<210> 2272  
<211> 429  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-050-Q1-E1-H8  
<400> 2272

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actcacacat cagaggacta ggtctcgact ctgccctcga gccgcgagct gtttccgaag 180  
gtatggtcgg tcaagtgaag gcgcgtaaag ccgccgggtgt aatccttcag atgattagag 240  
aagggaaaat cgcgggtcgg gctattctaa tagcgggtca acccggaacg ggtaagacag 300  
cgantgcaat ggggatggcg aaaatctctt ggcttggnaa ctcttttttg cgatgattgc 360  
aggangtgaa attttctcat ttnnagatgt caaangacaa gaagnctttg actcagtctt 420  
tccgtaaan 429

<210> 2273  
<211> 484  
<212> DNA  
<213> Arabidopsis thaliana  
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<223> Clone ID: LIB22-051-Q1-E1-A8  
<400> 2273

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atcaagccgg cctcactgat tggcaccaaa ggtacattgg gaaagtgaag catgcagtat 240  
 tccacactca aaagactgga agaaagcgtg ttatcgtctc aaccgaggag aatgttggtg 300  
 cttcacttga tctcagacat ggggagatat tttggcgaca tgttctcggg acaaaggacg 360  
 ctatcgatgg ggttgggtatt gccttgggaa aatatgttat cactctttca tcagaaggaa 420  
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 ccgn 484

<210> 2274  
 <211> 397  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-A9  
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<210> 2275  
 <211> 447  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-051-Q1-E1-B4  
 <400> 2275

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catttgatat tggggaaacg aggagtagag gacgatggaa aatctgatct ctctgggttaa 240  
 caagatacag agagcttgca cggcttttagg agaccatgga gactccagcg ctttacctac 300  
 tctttgggat tccttgccctg cgatcgccgt cgttggtggg tcagaagctc aggggaagtct 360  
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<210> 2276  
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 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 2276

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 tttgttcgtt ctgattatct gacaatgata ttctccaagc ttggttcttc cctcgctcga 180  
 tcctcacgtt ctaagggtt tgtgtacggc ggtggtgtga gatcggcggg atttaaccaa 240  
 gggagggttac gagcgccgca gaatctcgag gcggccgtca atcagggtga tgggtggatta 300  
 gggtttttga ggcggcactt tgcttctttt gctgctcgaa anggactaga agccggtgat 360  
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 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 2277

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 caattcagat gaaatectcg ccgttaaata atctgagggt caccgctcag agttcttgca 180  
 aagagaagcc aagattctct cgtcgtaag ttctccttac gtgacggat acagaggatc 240



agaaaccaag agagagtcaa acggtgtcgt tatgtataat cttttgatgg agtacgcacn 300  
 gtagtgaacg ttgaccgang cggcggcgaa agacgggggg aagagtcgac gaggactcgg 360  
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<210> 2278  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 ggtagcgaaa gctatggagg ataagataga cgacgagata gcgtctctgg aaaagcttnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnna cggtaggatga gtattggaca tggtagaatac tctgagattc attctgagaa 300  
 agattttcttc tccgttggtta aatctagtga acgcgtcgtt tgtcacttct accgtgagaa 360  
 ttggcctgta aagtgatgga taaacacatg agcatattgg caaagcaaca cattgagaca 420  
 cgtttccgtg aa 432

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 <211> 445  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-049-Q1-E1-B6  
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 caagctccgt ggctagtctg cgctctttgg actttgaaaa cttagcgaac tgaaacatct 180  
 aagtagctaa aggaaggga atcaaccgag accccgttag tagcggcgag cgagagcggn 240  
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ccagggtttca ttcgatttan tgtggattgg atgatggnaa aaccancaag cctcttctct 360  
 tcagtcgagt tacttcgtan cttgactgaa gaatcctaaa agggcgctgt taaactgtta 420  
 attgtgnaaa aggttgggaa gatct 445

<210> 2280  
 <211> 484  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-049-Q1-E1-C1  
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 tacctcggtt aaagcaatca cgtagctttg gatcgtttag ggttttctca ttgggttttg 300  
 gggatttgta ttctagcttc ctcaaactca atctgatggg gatgtgaaga caaggcttaa 360  
 tctgtttaat tggcgattct agggtttttc aatggcgaac acaggcgaac ctgaccgtaa 420  
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 cntt 484

<210> 2281  
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 <212> DNA  
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 <223> unsure at all n locations  
 <223> Clone ID: LIB22-049-Q1-E1-C3  
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 atggtgagaa tgataggaa ggcggtgagg ttgcagaccc aanatggntc accattaaag 180  
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acactgttaa caacttctcc gcagccacag ggattccgtc tttcttcatt tccttcatcg 300  
 ctttgccttt ggccaccaat tcaagtgaag ccgtgtctgc cancattctc gcatcccgca 360  
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 caacattct 429

<210> 2282  
 <211> 494  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 ggtttcctta aaccttccgc tacaatcttc tcctcttaca tgcgaagctt ctccgattct 180  
 caagttttga tagcggctta atactcgcaa ttatggattt cgcagccaag aaattcatca 240  
 acaaccccaa cgatgttgta actgagttca tagagggtct ggtagaaaact tatcctggac 300  
 tccagtattt ggatgggttt cctgaagtta aggtggtgct acgagctgat gtctcggctg 360  
 caaaatatga caaggttgcc gttatctcaa gtggaggcaa tgggcaatga gccaaacaaat 420  
 gctgggatac nttggagaaa ggaatgctaa canctgctaa tttgtgggaa angtctttgc 480  
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 <212> DNA  
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 tgcagtctgt tttccaataa agttaattcn ctaacagaac aagtttcgag attggatatt 180

gacgacaacg atatgggact tggaggtagt gaaacaatgg aatgcaagtg tggatatgcct 240  
 ctgtgtatct gtgtagctcc toccaaatca actgataaac caaaccacc tgctaccatt 300  
 gctcctgtgg ttcttctca gttgaagtca naggcttcag canaaagtaa aggttccact 360  
 tccagcagca atgctagatc agctctaaat gctggactag acacccccca aagagactat 420  
 gaagccagtg gggagggat 439

<210> 2284  
 <211> 366  
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 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 2284

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 ctgctgcgcc atcctctgct cctgctaagg atgaggggaa aaagacctat gattacgggtg 180  
 gcaaagggtgc gatcgggcgt gtttgtcagg tcatcggtgc cattgtcgat gtgagattcg 240  
 aggatcagga aggattgcct ccgatcatga catctcttga ggttcaggat catcccacaa 300  
 ggctggtgct tgagggtgtct catcatttgg gtcaaaatgt cgttaggacc attgctatgg 360  
 gatggn 366

<210> 2285  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-049-Q1-E1-D3

<400> 2285

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 gctctgttac tggatcgatt tctcgatatt cttcaggatt tgcattggcca ggatgtcaga 180  
 gaattcgctc aagaatgcta cgaagttgca gctgattacg atggaaaccg caaactgag 240

aagcttgagg agcttgaaaa tatgctgacg agtttggatc caggggattc aattgttgtc 300  
 actaaatcat tctccaacat gcttagcttg gctaactctg gctgaggaag tccagattgc 360  
 ttaccggcgt angattaaga aactcaagaa aggtgatttc gctgatgang gcctctgcaa 420  
 caacggaa 428

<210> 2286  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-049-Q1-E1-D7  
 <400> 2286

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 attingngat ataaaggggg ngaatcccaa acantggttg gttaaaaatc ccttttgaga 180  
 tcaatgaagt tacgtcgtca ganacattat cgccgtcgcg gctttggcca tcgctgccgt 240  
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 ggccatcttt gttctcggcc acgactgtgg acatgggaag tttctcagac attcctccaa 360  
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 gagaataaa 429

<210> 2287  
 <211> 372  
 <212> DNA  
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 <223> Clone ID: LIB22-049-Q1-E1-D9  
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 nnnnnntct cgaggcatca acganacgct ttcgctccca ttcatnattg tttgatctct 180  
 atcaatccca gcacatcttc ttcactctta ttctcggntt ctctcttctg ttcgtctcca 240

cattcnaatg gagatggaaa gattgcangg ccgtnagtgg agtatgaacg cagaatcgta 300  
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<212> DNA  
<213> Arabidopsis thaliana  
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ctgacaacgc cttgaagttt caggatctgg accttgctcc ccataaattg aagggatata 180  
cggctgagtt tcttatccaa tattgcaagg gtggncnaa cttcggttca acggcnntng 240  
aaagntncca acnaantctt aaccctgnng ctggntccc cggtcaaaag ncaattcctg 300  
gactaaattt ttcaagcaag tgtcncaaat gagattgcgg gaancanatt tgcaagtttg 360  
aagacttcaa tttacntccg gncaataata aaacggggtc cccctccttg gtgggggttcc 420  
ctgaaaaaaaa ataan 435

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ttaccaagtg gtctttatac agagccgtca ttgccgagtt cgtagcncct ctctcttct 180  
tgtacatcac cgttttaact gtcacgngt tacaagattc actccgacac aaaagccggg 240  
ggacttgact gcggcggcgt cggaatccnt gggatcgcggt gggcttttgg tgggcatgat 300

cttcatecnt gtctactgca acgccggtat ctcaagggtg tcacatgaac cctgcgggtg 360  
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<210> 2290  
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<212> DNA  
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tatggtgnata gctgagtgta cttgtctgct atttcgacgt tgttattgta tttttgtttt 300  
gaanatgaac cgtgagtcta caagcttttt tacacaactc ttttgttgct tttgtgtttt 360  
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<210> 2291  
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<212> DNA  
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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnngtcg 180  
ctggctgtaa cggaatctcc gcttgtgatc tcgagaaact caacgttctc ggatgcggaa 240  
acggcgggat tgttacaaa gtccgtcata aaaccacatc ggagatctac gctttgaaaa 300  
cagttaacgg cgacatggat ccgattttca caagacagtt gatgcgagag atggagattc 360

tccgccgtac agattcaccg tacgtcgtta agtgtcacgg aatcttcgag aaacctgtcg 420  
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<210> 2292  
<211> 484  
<212> DNA  
<213> Arabidopsis thaliana  
  
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ttctcaatca catcagctcc cggagacgat tacctgagcg tacatatccg cactctcggt 180  
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aaaagcggtc ttctccgagc agacggagga gatggaaacc tcccgttccc gaaggtcctt 300



atcgacggtc catacggtgc tcccgcacaa ggactacaag aaatacgacg tgggtactcct 360  
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agaggcttag ggtttgtggc gaaatgttgg tacagagaag agtaatgagt tggagaagag 180  
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<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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gctnnggtga ctggacaagt aaacncagga ccgtttntct caaggtttgc aaacctccta 240  
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gaagaangcg agcagagaag cctgaagttc gtgatgccgc tagagaanct gccctacgtg 360  
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attt

424

<210> 2296  
<211> 427  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-048-Q1-E1-G3  
  
<400> 2296

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gnaagccttc ntagactcgn tncancttcc nctcactact acgaacactg gtggatctgt 180  
ttcatattcc tccatattct ctcgtttaat cggctccgct gcancggata ctgctgtgaa 240  
gaagcgtggt gaaagatgtg atgcctattg caaccgggtca cgagaaagan gaactacaag 300  
ccgaattggg aggggatgaa gctggacgat atanactttc ctgaagggcc ttttggaaca 360  
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aaggtgg 427

<210> 2297  
<211> 391  
<212> DNA  
<213> Arabidopsis thaliana  
  
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<400> 2297

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atgttctagg accaaacatg aacccaaacc gaccagacaa ccttaacaac gactacacca 240  
aggggtgcaa aactctccgg gaagcttaca catctctatt tgaaggtttt ctatcagtag 300  
tacaggatca atcgaagttg cccaaacgaa gcaagtcaaa cagctgtgtc agattctggt 360  
gaggatatta aagnaagact ctgagagaaa a 391

<210> 2298  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana

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<400> 2298

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gctgaagcat cggaatatgt tcgctctggt ttcacctcct ctgctctcaa atcanacgtc 180
gttgcttacc aagtgtctct aacttaccca gttcatcgct ctttgggtact aangccgaca 240
gactctgcaa agccaatcac tttcttgctg gnacaanaaa aactcggaga caatccttat 300
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 2299

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 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-049-Q1-E1-A10

<400> 2300

agatcaaaga acanggagaa atgctccatg ggaacgatna caaagcttcc gccgtgaaag 60  
gaacttcang ggcgcagagg aaagcaaacg gggatattgg acagactgag aaaagctatg 120  
aatctcactc atacagcctg agaaaagcct tgaaatctgc aatgtanatt acctaaaatc 180  
ttgtttcttt tttttacttt atttggtctg aagaattttt gttaaattatt catatcttta 240  
ggatctgaat ggttattggg ttctgtatgt gagatgtaag tagaaatctg tgtgaatagt 300  
ttttgcgttt gatgtttctg gagaaatcaa tcaataaaat caatgttggt ggctttattc 360  
acaaaaaaaa aataang 377

<210> 2301

<211> 490

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-049-Q1-E1-A2

<400> 2301

ctgtttacgc cgcccggtn cgggtccaan aattcccggg tcgacccacg cgtccggctc 60  
aggttaatcg aatatttcac tatttgcttt ctatctttct gctgcgaatc aatggcgcta 120  
tggatggacg ctggagcgac gccgaccacg gagaaggaaa aggctgatct tgaagctatt 180  
tctgctctca aagaatccac cgccatcgaa ttcaaagaag agggcaatga atgtgtaagg 240  
aaagggaaaa agcattactc tgaggcgatt gattgttaca cgaaagccat tagtcaggga 300  
gttctaagtg attcagagac ctctattttg ttctcgaatc gatcccatgt taatctactc 360  
ttaggcaact atcggcgtgc cctcaccgat gctgaaggaa tcaatgaggt tatctctca 420  
taacgttaat gcggtgttac nagctgctaa ggcatccatg tcattgggat ttgctgaac 480  
gangcaaagt 490

<210> 2302

<211> 443

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-049-Q1-E1-A4

<400> 2302

acgcgtccgt atggtgatct tagtacatcg ccactctatg tttataagac cactttctct 60  
gggaaactaa gtcttcatga agacgatgaa gagatctttg gagtggtctc tttcatcttc 120  
tggacattta cactcattgc tctttttaaa tacgttttca ttgttctctc agcagatgac 180  
aatggagaan gtggaacatt tgcgttgtag tgcgttcttt gtagatatgc caagctaagc 240  
attttaccaa atcatcaaga aatggatgag aaactatcaa catatgcaac gggaagccca 300  
ggagagactc ggcaaagcgc agcgggttaa tcattctttg agaagcaccg aaatctcaaa 360  
agtgtttgtt gctctttgtt cttttaaggg acatgtangg ctattgggtg atagtgtcct 420  
cactccaaca atctcagttc ttt 443

<210> 2303

<211> 404

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-049-Q1-E1-A6

<400> 2303

angccatggg tttaggcatc ttancttctc gaananttcg accaancttc acgtcttctt 60  
caatctcaaa cctccaattt cttcctcngc acaatcgtct caaaaccaga gtcctaatct 120  
cctgaatccg ctgctgtctc tgagcctgag ccgccgacac agattctccc tcttanaaac 180  
cctgtangtg gagcacgcgt ccacttctcg aatcctgaag atgcgatcca ggtctttgtc 240  
gatggttacg cgggtcaaagt ccctaaagga ttcactgttc ttcangcttg tgaggctcgt 300  
ggagttgata tcccgangtt ttgtcatcat tctcgtttat ctanntgctg gaaattgcag 360  
ggatgtgtcc tggttgaggg ttgagaaaat ctcccaangc ctgt 404

<210> 2304

<211> 488

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-049-Q1-E1-A7

<400> 2304

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ggttaaatgg ggtaatgttt tagtcanact gatcaacaag tttcgtaaga agctgtcttt 120  
gaaagttcag tggaggccct tgtatgatac cttgattcat gtcatttca ncangagccc 180  
gggtcctgaa ggttggaggt taagacaacn acactttatg gctgttacct ccctcattcg 240  
ttcctgtang agattttttc cacaaggggc cgcactctgag atatggctctg aattcatgtc 300  
tcttttggag aatccttggc ataattcctc gtttgagggc tctggctttg tganattgtt 360  
ccttctacg aaccccgaaa atcatgattt cntctccgaa aagtggataa naaacgttct 420  
agagctctgg gattcaatac caaattgtca attttggnat antcaatgga catctgtact 480  
anctcgcg 488

<210> 2305  
<211> 427  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-049-Q1-E1-A9

<400> 2305

tcccccttgt tatctgacaa cgggttgggc cnttttgcaa aagcntcctt atcacntgng 60  
agtcctcagc ttgaagaatg ccacaggggt acccaatttg ggttttttgg ntcccttttg 120  
aactgtggtg aaaagttgaa ggcnttctcn ctggtgaact gtntgagtat tagagatctc 180  
accacaggat tgcttgcttc atctcattgc agcgtctctgc gctctttgtc cattcgtaac 240  
tgccctggct ttgngatgc aaatcttgca gccatctgga agttgtgccc tcagctcnag 300  
gataatgata tgtgtgggct caangggata acacagtctg gttncctana tcctgaatca 360  
aaactctctt gtgaagatca actcagtggg tgtgccaatt tgactganac aagtgatctc 420  
ctgccat 427

<210> 2306  
<211> 430  
<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-049-Q1-E1-B1

<400> 2306

gaacatttcg accggagttt tgagagagct cagagtgttt cgagtgtgtt atttggatct 60  
gcgatctgat cgtctcgcat cgacgtgaaa ggttttctaa tccaattggt tctgtggaaa 120  
tttggattcg gaggtttttg tttggnagat ctttctgcgg ttttcaccgc catggctgct 180  
ccgtttttct ctactccatt tcagccttat gtctatcaga gtcaagaaga tacnatcaca 240  
cctttccaaa ttttgggtgg tgaancacag gttgttcaga taatgttaaa accacaagag 300  
aaggtcattg ctaagcctgg ttcaatgtgc tacatgtctg ggtccattga gatggataat 360  
acttataccc ctgaacaaga agttgggagt tgtacaatgg attttangaa aagagtgtta 420  
agtagtanaa 430

<210> 2307

<211> 473

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-049-Q1-E1-B11

<400> 2307

ggtncgggtc caaaaattcc cgggggtccga cccacgccgt tcngntnccc cttngancaa 60  
aattngtaac ctncggggna tncaaaaaan tccnattttt cctccaaccc cnaaattttc 120  
agggagttec ttncnctnctn ttttgaaaac cctttgtcat gagcnaattt ttancctccg 180  
gtgtgttgag aaagatctca ttttttaagc tttaggattg agggagtttc gatttttact 240  
tagcactttt ccttggaagt gatttggtgg gaactcatgg tgattgggtt tcttcctaag 300  
gttattagag attgagttct ggatttttca cgcgccttgg gatttgannn nnnnnnnnnn 360  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 420  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnctgtgt tgattaagaa tcn 473

<210> 2308

<211> 410

<212> DNA

<213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-048-Q1-E1-F11  
 <400> 2308

aatttccaag ctttacgttt tgtccctcac attacatcac tcggtgatgc tcttgtcagc 60  
 cgccttagaa acccgtcacg gagaagcaat aaggaacaga aaaatgttga tcatttagga 120  
 gacatgacca acccacacag aagacaagaa cccgggaagt ttgctgtgct tcatcttcgc 180  
 ttcgacaagg acatggctgc gcattcagcg tgtgattttg gcggaggcaa agccgagaaa 240  
 ctctccttgg cgaaatacag acaaatgatt tggcaaggaa gagtgttgaa ttctcaattc 300  
 actgatgaag agttaagaag tcaaggacgg tgtcctctaa caccaagaag aaatgggact 360  
 tcttttagct gctttcggat tcgataacaa tactcgtctc tctccttgca 410

<210> 2309  
 <211> 486  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-048-Q1-E1-C4  
 <400> 2309

ntgttacgcc tgcaggtagc ggtccggaat tcacgggtcg acccacgcgt ccgcccacgc 60  
 gtccgcccac gcgtccgccc acgcgtccgc ccacgcgtcc gtggagagag aaaagggtta 120  
 gatacagaga gatagcgaaa gagaagaaga agaagaggtc tatcgacaga gcaaacttcg 180  
 tcaagagatc cgttaaaagg atccatttgg agtccgatt cgagctagag tcaataatga 240  
 gcggaagaca gagatctgtt gcagcggcgg tgcacacca gaggcagctc tccgataacc 300  
 ctctcgatat gtcttcatcc aatggcagat ggcttcaatc cactggtctt cagcattttc 360  
 agtcatccgc caatgattat ggntactatg ctggtgggca aggaggtggt ggtcaagcag 420  
 canggangat aacaanaatg ctgagagaag gaaaacgagt ttctttgggg aaaccaanct 480  
 gactcc 486

<210> 2310  
 <211> 382  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
<223> Clone ID: LIB22-048-Q1-E1-C5

<400> 2310

tcttggtgtg gtttcgtgtc gtagtcatta aaatctcatc tctctcactc tcagttccaa 60  
taatacccct tcctatcaga gccaacacgc atccagcatc cttcatcagc ctttgcgat 120  
gaaaatgatg aaacttgaat agagatcatt cgtatttcat cgacgtttct aattcgcaat 180  
cacaattggt ttcttcaagg aattggtttg cttgctttga tcctcagttt tgtcaaaggt 240  
cttttttttt ttttcctgga cttgctaaaa tctcttgtgg cttttgctct gatacttggt 300  
agtttgggtt tcgtgagtct cgctttaaaa aggatatggg acanaagaga tgggntcttc 360  
ntgtggggaa tttttgtttg nc 382

<210> 2311  
<211> 408  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-048-Q1-E1-C9

<400> 2311

agatgcgagt gagcttgcca attccatcaa acatccattc agaaacatct tgcagaaacg 60  
acacaggcct cagctagtta tggctatttg catgccaatg tttcagatac tcacagggat 120  
aaactccatt ctcttctacg cacctgttct gttccagaca atggggtttg gaggaaacgc 180  
atctctctat tcatcagctt taacaggagc tgttcttgtc ctatcaacat ttatttccat 240  
aggattagta gacagattgg gacgaagagc tcttctcata actggaggaa taaaaatgat 300  
aatctgtcaa gtcatagtag cagtgatctt aggagtgaat tttggagaca accaagagct 360  
atcaaaaggg tactcagtga tcgtagtcatt cttcatctgc ctctttgt 408

<210> 2312  
<211> 408  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-048-Q1-E1-D10

<400> 2312

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cacacgtcta ggtcgcacta ctattctttt aactacacaa tgatcggtc ttttaattact 120  
tttgtattga tgttcttcgt tttccttttg gtatcatctt tagatgggtca gcgattgcag 180  
caaaactgcc tggaagaacc gataacgaga tcaagaacgt atggcacact cacttgaaga 240  
agagactcga agattatcaa ccagctaaac ctaagaccag caacaaaaag aagggtacta 300  
aaccaaaatc tgaatccgta ataacgagct cgaacagtac tagaagcgaa tcggagctag 360  
cagattcatc aaacccttct ggagaaagct tattttcgac atcgctt 408

<210> 2313  
<211> 409  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-048-Q1-E1-D12  
<400> 2313

aaattgaaaa caaatatatt tccacctgaa acaacataaa cagaatggaa cttcaaaac 60  
aagaagttcc aaagctcatg gagacaccac cgaacatata aaacgattca tcagcaaccg 120  
agaaaggaga agcaacaagg caacaacagc taccaaacia taggtacgca ctcacagttg 180  
acgaggtgat cgagcaacac attggagcac ttgggtttgc tcagatcttg catgctctct 240  
tgggtctctat cgcttggatc ttcgatgctc agaccactct tatatccatt ttctccgatg 300  
ctcagcccgc ggcgaggctt cttgcaaccg gtgccatcgt ggagggtgcc tccttgtgtg 360  
gattggccag tggagaatgg gaatggattg gaccaaagag tgacactgt 409

<210> 2314  
<211> 489  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-048-Q1-E1-D6  
<400> 2314

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agcttctcta gcagctcaaa tccgtccctt cacatgtttg gccgcgtctc tgccgtcacg 120  
gttggcgctt catccaccag acctcatccg gtggatcaag cgagaaggcg gcttcgttca 180

ccacgcgggtt aagctctctc aggagactca atttgggtatc ggactcattt ccaccgagca 240  
aatctctcca ggcaccgacc taatctctct cctctctcac gttcccttac gtttcgaatc 300  
agatgattcg tcatcttcat cgctctctct cctctccgca ttggggccgtc ngtgttccct 360  
gaaggaactg tnggcantga aattgggatt gangttgtta caagaaagga gccaatggca 420  
gattctttct ggtgggcat acattaggca anctcccgga aaaacntaaa actgggtccc 480  
anaaatcct 489

<210> 2315  
<211> 427  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-048-Q1-E1-D7  
<400> 2315

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ttgacgtgta cgtccgagta accgggggag aagtcggagc agcgagttct ctagctccca 120  
aaatcgggtcc gctaggtctc gcaccaaaga agatcggaga agatatcgcg aaagaaaccg 180  
caaaggaatg gaaaggatta cgtgtaaccg tcaagctcac agtgcagaat cgtcaggcga 240  
aagtgcgggt ggttccatca agcagcagca ctcgtcatca aggcgttgaa agagccggag 300  
agagatagga agaagggtgaa gaacattaag cataacggga acatctcgtt tgatgatgtg 360  
actgagattg ctaggatcat gagacctaa attctaattg ctaaaggaat tggagtggaa 420  
caagtga 427

<210> 2316  
<211> 397  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-048-Q1-E1-D9  
<400> 2316

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ataagtttcg tgcgccgtat cgaattagggt gcgccgccgc ttcaccggtg aaaaaacggt 120

ataacatcac tctgcttccc ggcgatggta tcggtccaga agttatatct gttgctaaga 180  
atgtgcttca gaaagctgga tttctccaag gactagagtt tgatttccag gagatgcctt 240  
tcggcgggagc agctttggat ttggtcggag ttccattgcc ggaggaaact tccactgctg 300  
ctaaacagtc tgatgccatt cttcttggag ctatcggagg gtacaaatgg gacaagaatg 360  
agaaacatct gaganctgag atgggtctgc ttaacat 397

<210> 2317  
<211> 395  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-048-Q1-E1-E1  
<400> 2317

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cttttttcgt tgtgtgttgc gtgtgttact aaatcactga agagggtaaa gagaaaaaca 120  
aaacaaaaag ttcttagctt tggatgaatc tggaagtgat ccaaaacact ggcttattcc 180  
actcctcttc tctagggttg aattgttagt taatagatgg cgacacttca ggatattggt 240  
gtatcagctg ggataaacat tctcagtgcc tttgttttct tcataatctt tgcggttttg 300  
aggcttcanc ctttcaatga tagantttac ttcacaaaan ggtatcctca aggggttaag 360  
aagcagccat gnncatgggt aacgccatcn cagat 395

<210> 2318  
<211> 405  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-048-Q1-E1-E11  
<400> 2318

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnctggtaat gctactgatc 120  
gtcaccgtga agctgagctt gatcgcttcc ccttgtgaac tgatctgatc tgagagttgt 180  
ttctgtttcg taatctgtga atatgctgac caagttcgag accaagagta accgagttaa 240

gggtctgagt ttccacccta aacgaccatg gattctcgcg agtttacaca gtggtgtgat 300  
ccagctctgg gattatcgta tgggtacttt gatcgacaga tttgatgagc acgaaggacc 360  
tgttcgtggg gttcatttcc acaactcana gcctttattc gtctc 405

<210> 2319  
<211> 423  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-048-Q1-E1-E3  
<400> 2319

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ctggagcaaa gtatcgggga gaattcgaag acagactaaa agctgtgctt aaggaagtca 120  
cagactcaga aggccaaatc attttgttca tcgatgagat ccatacagtt gttggtgcag 180  
gtgcgactaa tggggccatg gatgctggta atctgctgaa accgatgctg ggccgaggcg 240  
agttacgttg tatcggtgca accacgcttg atgaatatag gaaatacata gagaaagatc 300  
cagccttggg gcgtagggtt caacagggtt atgttgatca acctacggtt gaagacacga 360  
tttcattctc ccgtgggttg cgggaaaggt atgaactaca tcatggggnt cgcacccac 420  
aaa 423

<210> 2320  
<211> 468  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-048-Q1-E1-E4  
<400> 2320

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gogtcgggag ctgctgctt acttcaactca ctgtaaactt caaacacctc acctacggct 120  
cgcgtacttc agtgcaatga ccgtctgcta caagtcaaag aacatggcta ctgctgctca 180  
cttcgccaga agtttgttgg atacaaaccc aactattgag agccaggcca ggacggctag 240  
acaagttatg caagcagctg aacgcaacat gacagatgca acaacactca actacgactt 300

tagaaacccg tttgtgatat gcgggggtcca cttatgtgcc aatctacaaa ggacagaaaag 360  
acgttgcattg tccttactgc actgcccggg ttgtaccaag ccangnaagg taacattttg 420  
ctcgggtctg tgatncttgc ngtcatttgg cgcangacgc catcctgg 468

<210> 2321  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-048-Q1-E1-E6  
  
<400> 2321

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agcttggtan agcagagttg gagaacatgg gtgtttctta taagtaccca gttgctgtna 120  
cnggtgttgt tgggtatgtt ggaactgggc atgctccttt tgttgcttta agggctgata 180  
tggatgcact tgctatgcan gaaatgggtg aatgggaaca caagagtaag gttccagggg 240  
agatgcacgc ttgtggacat gacgctcaca ctacgatgct tctcgggtgct gcaaaattgc 300  
tcaaagaaca tgaagaagag ctacagggca cagtgggttct aagttttcca accagctgan 360  
gaaggaggag gaggtgcaaa gaanattgtg gaggctggga gtgttggaag aatgt 415

<210> 2322  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-048-Q1-E1-E8  
  
<400> 2322

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agatgtcgaa ggcacttgca gtggccgaca tggatttgta gtggcgataa ctggaataga 120  
tacaatagga aagggtttga tcagagatgg gactggtttt gtcacctttc cagttaaata 180  
ccaatgcgtc gttttcagac ctttcaaagg cgagattttg gaagctgttg tcactttggg 240  
caataagatg ggattcttcg ctgaagctgg ccctgttcag atttttgtgt ctaagcattt 300  
gattccagat gatatggagt ttcaagctgg agacatgcct aactatacca catcagatgg 360

atcaagttaa gatccagaag gagtgtgaag tgagactaaa gattattggn acaaag 416

<210> 2323  
<211> 405  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-048-Q1-E1-E9

<400> 2323

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agagctaggg ttggtccaag caaggtgggtc atttgtgaac aaagatgaga atctcctcac 120  
gaggctacaa aacataaact tatgtttcca cttcgaagta gaacaacaag tgaacggtgt 180  
gtttctcaat ttcttcggat tcaatggaac cgctggagta tggaggatca aggcattgga 240  
agaatccggc ggatggctcg agagaaccac cgtggaagat atggatatcg cggttagagc 300  
gcatctcaac ggctggaagt ttatttacct taatgatgtt gaagtcactt gcgaagttgc 360  
cagagtctta tgaagcttac aagaagcaac aacatcggtg gngt 405

<210> 2324  
<211> 408  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-048-Q1-E1-C12

<400> 2324

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tacttgtgat tcaagacgaa gagtcaaaac cgacttggtg ctttggaat tgctacgatg 180  
gtgaactcaa aggcttaccg ttccacaga acgcaaagct gactgtgact tacagaaccg 240  
gaactggtaa tgacaggcgc agttaccatg accaggttct gttcattccg gttcttgatc 300  
agccttatta ttcgaaccgt tattatgtca ttaaaccgacg tgggaagcaa tcaggaggag 360  
cttcggcgag tgcaaaggaa gaagacagag tcccctgctg cttttgct 408

<210> 2325  
<211> 492

<212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-046-Q1-E1-F4

<400> 2325

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catttgtttt cttgaaaatg tcggaagaat tcgacgaatc tgagatcatt ttctctgaca 180
attactttcc gattcgccgg cgagaagacg gtaacgagaa agagaataac cgtccggtgg 240
atttcgggga aaattctgag agagtgtgga acaagtcatc tagacggagt aaaacgacgc 300
cgttgccttc agcggtgacg gcgttttcta gttcgcttcc ggttaacata ccgatgagga 360
ggtattcgac ggaggaggaa tattccgatg acgacggang aaggaaaatg attccgccgc 420
atttgatagt tgggcggang atggaaagan gtcaaattggg cgttttccgt ttgtacaggt 480
aaccggaaga ac 492

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<210> 2326  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-046-Q1-E1-F8

<400> 2326

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aaaccagatc ggagctaagt tctggaagt agtttgccg gagcacggga tcgattcgac 180
gggaagatac caaggagaga acgatttgca actcgaacga gtcaatgtct actacaacga 240
agcgagttgc ggaagattcg tcccacgcgc cgtcctcatg gatctagagc ctggtactat 300
ggatagtgtc agatccggtc cgtacggta gatcttccgt cctgataact tcgtatttgg 360
gtcaatccgg tgccggtaac aattgggcta aaggacacta cactgaangg gctgaactta 420
ncgaatccgt tcccgangtt g 441

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<210> 2327  
 <211> 373  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-046-Q1-E1-F9  
  
 <400> 2327  
  
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 ctacgaggag gagctcttgg actatgaaga agaagacgag aaggtcccag attctggaaa 120  
 caaagttaac ggcgaagctg tgaaaaaagg gtacgtggga atacacagtt ctggattcag 180  
 agacttcctt ttgaaaccgg agcttctcag agctattgtt gactcaggat ttgaacatcc 240  
 atctgaagtg caacacgaat gtatccctca agctatcttg ggtatggatg ttatctgcca 300  
 agcaaagtct ggtatgggga agactgctgt gtttgccttg tctactctac aacaagattg 360  
 aaccatctcc tgg 373

<210> 2328  
 <211> 490  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-046-Q1-E1-G1  
  
 <400> 2328  
  
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 taaagcatcg cagtatcttg cgatcaccgg tgggtgggatc acagacatca agcttgcaaa 180  
 gaagtcttgg gtgtttccat ggcagtcttg caccgtcttc gacgtttctc cggtgaaacta 240  
 cacgttcgag gttcaagcta tgagttccga gaaacttccc tttgttattc ctgctgtttt 300  
 cacaatcggg cctcgcgttg atgactctca cgctctcttg ttgtatgcca tgcttatgtc 360  
 tcaacacgat aagcactcga atcacgtcaa tgagcttggt canggtgtta tcgaaggaga 420  
 gaccgtgttc ttgttgcttc catgactatg gaagaagtcn tcaaaaggaa caaaggagtt 480  
 aaaaaaggaa 490

<210> 2329

<211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-046-Q1-E1-G10

<400> 2329

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 gttctatgct ctcacggagg cagctgagtt tgctaaaact tgggttcctt tctgcaagaa 180  
 gttcaacgtt gagccaacat ctcccgtgc ttacttgtct tccaaggcaa actgtcttga 240  
 ttctgcccgt gaggaggtgg ctaagctgta tagagaaatg gcggcgagga ttgaaacggc 300  
 ggcgagactg ggacgaatac cggangaggc gcgggtgaag tacggtgacg gggtttcaca 360  
 gtgggatgct gacgctactc gaagaaacca tggaaaccat tcttcaa 407

<210> 2330  
 <211> 439  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-046-Q1-E1-G2

<400> 2330

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 cggaaacaac tcccaaagtg aaaggccacg tcgtaatctt accataacca gttcaaggcc 120  
 acctaaacc aatggttcaa ttcgctaaac gtctagtctc caaaaacgct aaagtcacaa 180  
 tcgccaccac tacctacacc gctcctcaa tcacaacacc atcactctcc gtcgaaccaa 240  
 tctccgatgg attcgatttc atccccatag gtatccccgg tttcagcgtc gatacttact 300  
 cagaatcctt caagctcaac ggatccgana accctaactc tcctaatacga gaaattcaaa 360  
 tccacagatt caccaatcga ttgcttaatc tacgattcgt ttcgtccctt gggggacttg 420  
 aagttgctac attcnatgg 439

<210> 2331  
 <211> 450  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-046-Q1-E1-G3

<400> 2331

acgcgtccgc tttcataagc tgaagattga attataccac attgctctat atcatctcga 60  
gaaattaaag gaagctcgtg acaaggctgc ggattctgat gaagttcana aatgcgacag 120  
tgaaatcgag gatctgcaaa acttgctgaa caatgatgtt ttgatcagtg gagtcaacct 180  
agaaagtctt caaccaggat cttctggcat gactgaactt tataaggctc tccaggagcc 240  
aaagtttcga gaacttgatt cagaagatct cctgacagag agattgttat cagcagagaa 300  
ggactggaaa tcaacaatcn aactactcaa acacgccaca ctgaccctga agatcataaa 360  
cttgggttct cttgagcaac agtcganata cgcttcaact tggtttgaaa nttcttcgac 420  
ctgtgctcaa gaaattgcga catgctgcat 450

<210> 2332

<211> 436

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-046-Q1-E1-G4

<400> 2332

acgcgtccgg aagaaacgaa gcatcagtga tcttatctc tcatagctac caccgaacta 60  
actctctcca tcaccacat aaccattgat tctactgtgg aaaaaataga aagttccaag 120  
ctttttctca aatggttctg atttaagtaa gagtgaagaa aagtaaaaat agagtcagaa 180  
atggagaanc agaggagaga agaaagcagc tttcaacaac ctccatggat tcctcagaca 240  
cccatgaagc cattttcacc gatctgcca tacacggtgg aggatcaata tcatagcagt 300  
caattggagg aaaaggagat ttgtttggga acaaggatat gagtggctct gatcacttgt 360  
ccttttgggg atttgcttgc tctagctaac actgcatccc tcaaaattct cctggtcaga 420  
ctccagtanc ctacaa 436

<210> 2333

<211> 449

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-046-Q1-E1-G6

<400> 2333

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tctacagaaa caaaaatctg attgtttttc ccactttgca tctgttttga ggatgccagc 120  
tacggatttt caaggatcat ttggaagggtc gttgctaagt ttacggcgag accaagttga 180  
ctcatcaanc agtcgtctcc ggaagtagta gccaccacga gncanncacc anggagggtg 240  
agctanattc gtttcanatg acaaagttcg ctgagaaatt catcggatct caacgcttct 300  
tcaagacgaa cttctcactc gtcnaatggg atngggaaaa gcttcntgan tccttccctc 360  
ngggtgtnc aaggaagaagt tttgaagcta ncngtattca nccnaccgna tttcagattt 420  
gcgnaatcct ccaatgggcc cgtttgant 449

<210> 2334

<211> 446

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-046-Q1-E1-G7

<400> 2334

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tcaagcaggg accatttttt cagcacggaa tgaaagagtg gagctgctgc aagcaaagaa 120  
gtcatgattt cagtttggtc ttggaaattc caggatgtaa aacaggtaaa cacacaactg 180  
agaaaccagt tctggccaaa tcggttccaa aacatcctgt tgcggctcct acttcatctc 240  
caagatgcca atgcagcaac aaaagactct tgctccagat gccggcaagg cttcttctgc 300  
tcagaccatg gatcccaacc caaagaacag atcaagcaag accctgaaca caccgggaca 360  
agcagaagaa gaaaaaatga acccttaacg cctccagtac aaaangctgt gatagacatt 420  
aatcaaccgc aagtctgcaa aaacaa 446

<210> 2335

<211> 501

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-046-Q1-E1-G8

<400> 2335

ctgttttaaac tggtcagccg gcctgtaang gtccaaanat tcccgggtcn acccacnctg 60

ccgcccacgc gtccgagctc caatcaatct ttccgcatcg ctccatcaag ttcttcgatg 120

ggcgcttggg tcggttgaga ttttcttgag taggcattgt cctatttggg atgggttatgg 180

aggtggggtg aaatggcttg agcggttggt ctacattaac tctgtggttt acccgtggac 240

ctctctaccg ctcatcggtt actgttctct ccttgccatc tgtcttctca ctggaaaatt 300

catcggtccc ganattagca nctatgcgaa gtatcctctt catggcgctc ttctcgctga 360

ttgcaataac gggattctc gagatgcaaa tgggggcaaa gttgggatca atgattgggn 420

gganaaaacg annagttttg ggtcattgga agngtttcct gcgcattcng gtttgctcct 480

ccttccaaan gtctcctcaa a 501

<210> 2336

<211> 501

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-046-Q1-E1-H1

<400> 2336

aactgtttac gcctgccggt accgcgtccg aaaattcccc ggtcnaccca cgcgtccgcc 60

cacgcgtccg gaggtaccag agtagaactg ggtaccacaa catgtacaag gagtaccgtg 120

acaccactct taacggagct gttgagcaga tgtacactga gatggcatcc cgtcaccgtg 180

tcagattccc ttgcattcag atcatcaaga cagccactgt cccagccaag ctgtgcaaga 240

gagagagcac taaacagttc cacaacagca agatcaagtt cccattgggtg ttccgcaagg 300

ttagaccacc aagcaggaag ctgaagacga cttacaaggc caacaagccc aacttggttca 360

tgtaaaacgt ctctgattga ctcttttttg ggggtggaatc gatgttgaag ctgtgctctc 420

tcccgttttg ggattttatc gggtattttt gtttttcaat atgttaagcg tactcatgaa 480

tgtgaactcc nactttgtcc a 501

<210> 2337  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-046-Q1-E1-H10  
  
 <400> 2337  
  
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 ttggcgtttc tgtcgatttc atagaccagg agttgtcgcg cttcattgct gctgggaagc 180  
 ttcactgtaa gatagacaag gttgcagggtg ttttggagac aaaccgtcct gatgcaaaga 240  
 atgcacttta ccaggcaaca atcaagcaag gggatttctt gctaaaccga atccagaagc 300  
 tgtctcgtgt gatcgatctg tgagcatgct acatgtttct gtttcaactt ttcgtcaagc 360  
 tttgcaactt ggaaactccg aacggtagaa tcttaaaggt ctgagaaa 408

<210> 2338  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-046-Q1-E1-H11  
  
 <400> 2338  
  
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 aatatgggtt ggtcagggaa cataccttac atcaattgcg agaagccatg ctacagatca 120  
 tggcctgcat gaaggttcgg taataggtgt cttcaatggg gaattttggg ctatgtttgc 180  
 ctgccaccag ctgtttggga atctcatcac acttgcatta ctgaaagatg gaaaggaagg 240  
 aagcaccaag tggcactacc ttattgatgt tgggtgttct cttcagtatg acattaggaa 300  
 caatacttat gttcttcatt cggaaaattg atggagaaga tggaaaagga cctgtgggtt 360  
 ctctgtggg cttagttgat tccttggcat ctctccaag ggatgata 408

<210> 2339  
 <211> 482  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-046-Q1-E1-F3

<400> 2339

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120
nnnnnnnnnta gagatcctct gtttttagcaa cccaagtgtc caccgaactc ttttctcact 180
ctctcggaat ttcaatgtcc gagcaatgat catcgatttc ttctgcaccg ccgtttttaga 240
catcaccgct gacttcacgt tcccggttta cttcttctac acctctggag ccgcatgtct 300
cgccttttcc ttctatctcc cgaccatcga cgaaacaacc cccggaaaaa acctcaaaga 360
cattcctaca gttcatatcc ccggcggttcc tccgatgaan ggctccgata tgcctaangc 420
ggtgctcgaa cgaagacgat gaggtctacg atgtttttaa aatgttcggg taaacaagct 480
ct 482

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<210> 2340  
 <211> 444  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-046-Q1-E1-C8

<400> 2340

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aggaaggtct cgttatcatc taaagctgaa gagtctctgg aaaacattat aaagcaagaa 120
acaaaggggg agattattta cttctggaca agattagaca tcgatggtga tgcgtatgga 180
agtaaaaatg ctcttacatt ctggtctatg tgcgatatcc ttaaccaagg aaactgcaga 240
accacttttg aagatgcatt ccggcatatg tatgggttac cagaacacat tgaagcgctt 300
cctcccatgc ctgaagatgg tcatcactgg tcttctctcc acaattgggt gatgccaaact 360
ccgtctttcc tcgagtttgt catgttctca aggatgttct cagaagtctc ctaagatgca 420
ctgcacaaca atcttaacga ctcc 444

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<210> 2341  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-046-Q1-E1-C9

<400> 2341

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ggattactac aatacacaac ataccaaatg aaattgtatt tctgttgaac tttatgcato 120  
catagttata tatatttacc agaaatcaag caagttgagg aaatcatcca aggettttgt 180  
tttgatggag gaaaacccgc atcgagtttc acgtagaaac catggcgagg cccactgtca 240  
aaacgacgcc gtggacgaag agaaccgtcg acgacggcat aaccaccaca ctcacggcga 300  
cgaagtcaaa tgctccagta agagatgccg atcgtgggag gctgcggcga ttgctgactg 360  
tgtagcgctt tgttgctgtc catgtgcgat natcaacctt cttact 406

<210> 2342  
<211> 499  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-046-Q1-E1-D1

<400> 2342

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tggttccttc agtttgattt taaggcaatt gaggcagcaa cgaattgctt tttgccaatt 120  
aacaagctaa gtcaagggtgg tttcggcgaa gtttacaagg gtacattgag tagtggacta 180  
caagttgcgg tgaagagact atcgaagaca tcaggacaag gtgaaaaaga gtttgaaaac 240  
caagttgttg ttgttgcaaa gtcaccaat agaaatttgg taaagctgct tggttattgt 300  
ttggaaggag aagaaaaaat acttgtctac gagtttgtgc ccaacaagag ccttgatcac 360  
ttcctctttg actctacgat gaaaatgaan ctagactgga caagaaggta caagatnata 420  
ggaggaantg cctagaagga atccttaacc ctcatcaaga ttcacgactc acaaattatn 480  
ccatccaaga cctcaaagc 499

<210> 2343  
<211> 406  
<212> DNA  
<213> Arabidopsis thaliana



<223> Clone ID: LIB22-046-Q1-E1-D12

<400> 2343

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agccctaaat ttggattctc tattctaaag ttttctcatt tcgctaattt tggagaaaaa 120  
cgattgtttt ttttaatcgt ttcttcattt ctgattcatt tttcttggtt tatgatctgt 180  
tcaagtaaag gaacaatctt aatcgctaga ggtaaaaatt caaatacaat ccctagatta 240  
cccctaaaag ggtcatccac aaattacgcg aatcgaattc aaattcgaaa cccaatcagt 300  
gtcaaaactt tccggcgatc atcttcatcg tcaatggcgg tggaaacaat gtcgatggga 360  
tcagattcat caactttgat tctaacatca aggagcaagc ggtcgc 406

<210> 2344

<211> 477

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-046-Q1-E1-D2

<400> 2344

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aacctttgcc aaaatgaaga agggagtctg aattgttaat gttgctcgtg gaggtgtcat 120  
agacgaagat gcgttagtga gagctctgga tgctggtatt gttgcgcang ctgcacttga 180  
tgttttcacc aaagagcctc cggctaaaga tagcaagctc gtgcagcacg anagggtcac 240  
tgtgacacct catcttggag ctagtaccat ggaggctcag gaaggagttg ccatcgaaat 300  
tgctgaagct gttgttggag ctctgaatgg agaacttgct gctactgcag tcaatgcacc 360  
tatggtttct gctgaagttc tgaccgaact gaaaccatat gtggtgctaa ccganaaact 420  
aagaagactg ggcaatgcaa ctgggtggcc ggaaggaaac cgtgtnaaaa aacgcca 477

<210> 2345

<211> 490

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-046-Q1-E1-D3

<400> 2345

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ctagaggccc caancttggt tgagcgcatg gtaacaactt tgtctaaaat tgctcaaggg 120

tctcagagtg ctgatccaaa tcctgccatg gcttcgcaga cagcttcggt taaaggttca 180

tcccttcagt gcctgggtcaa cgttcttaaa tctactagttg attgggagaa aataaggaga 240

gaggcagaaa atagtacaag aaatgcanac gaggactctg cntctactgg agagccaatt 300

gaaaccanaa gcagggaana tgtcccaagc aactttgaga angctaaagc tcataaatcc 360

acaatggagg ctgccatctc cgagttcaac aggaattcag tgaaaggtgt cgaatatcta 420

attgcaaaac aagttggttg aaangaatcc tgcttcagtt gcacagtttt ctganaaagt 480

actccaatcc 490

<210> 2346

<211> 453

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-046-Q1-E1-D4

<400> 2346

tccanggtcc acccacgcgt ccgcngcctt cttcttcact ttacccaaat catcgaatcc 60

atTTTTtaggg tttttgtttt ctctctaaat ttntattggt atcttcttcg cgataccttg 120

gaatcgcatc tctgagatag ataaataatt ctgattcgta tctttaaatc ttgggttcnt 180

cttcttctcg cgattcggtt aaaagagcag catcaatgaa ncagaatctt catgtantat 240

caatggattc gttaccagtt ggattaagat tccgtccaac agacgaggag ctaatccggt 300

actatctccg tagganaatc aacggtcacg atgacgacgt caaagctatc cgtgagatcg 360

atatttgcaa atggggaacc ttgggattta cctgattttt cctggtgatc aaaactaaag 420

actcagagtg gctctacntc cgggtccaatg gga 453

<210> 2347

<211> 497

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-046-Q1-E1-D7

<400> 2347

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gcggagactg agagcagcag cgacgagctt catcggccgt cgtctccgac ctcaactcgcg 120  
atctccgatt acaaaaatta gatcctcgat taagaattcg aaacatcaaa atttcatcaa 180  
caaaaaaaat cagttactgg atttacgttt cgtttgcgtc acagatcaga tctccatgat 240  
cccttatccg ctttcgttgc ggttccttaa accttgatgc aacgggtctaa tgcncgttcc 300  
aggtcgaata tcaattcang atatggtaag atcctcccga ggttcaagac ttcacctggc 360  
aaccaccgat catcgccgtc caccgccgcc aaacccaagt cgaaacgaac anaatcgatt 420  
atcttcgtaa tcgtcgcttg tgtaactatt gccttggggt taataatcaa tggntaattc 480  
anttttacgc tccgggg 497

<210> 2348

<211> 411

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-046-Q1-E1-E10

<400> 2348

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tgctaacgaa gggaagagag agtacgagga ggttggtgcaa gagtgccacc gtgctctctc 180  
catcgaatat ccgattgatc ctgctagaga gagtcttcag gatgagactc agctgaagat 240  
attgacacct gaggtctgta ttgctcattt ccaggatgag ctcaggtcac tgatacagaa 300  
gtctaacatt tattcattgt ccacttggat gcagaccttg ggaaatgggtg aagaagaaat 360  
ttaagggtga ttctcttag gagaatgggc cgaaggattc tattggagag t 411

<210> 2349

<211> 495

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-046-Q1-E1-E3

<400> 2349

antgttacgc cttccgtagc cgtccgaaat tcnagggtcg acccacgcgt ccgaaaagtt 60  
gaaacagaaa tcatctaaga gacgattaag agaaaactaa gaacgataac tctcgccttc 120  
gattcttttt gttgattgag gcgcaagcta cctgcacaca atggagaaca atcgagaggg 180  
accatactct gttctaacga gagatcaact taaaggaaat atgaagaagc agatcgccga 240  
aatctctgag atcttctcgt tatcaaaacc cgatgcgacc gtactcctca tgtttctccg 300  
atgggactct catgaagttt ctgagttttt ggttgaaaac aacgaaaaag tcttgtcgga 360  
atcaggtttg aaaccagtgg taagttgatc cgaatcaaga cttatataag atttcttctt 420  
gtgggatttg ctttaagact tgtgatgatg gtgattactt aatctccacg cccttttggc 480  
tctcacatgt tctgc 495

<210> 2350

<211> 492

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-046-Q1-E1-E4

<400> 2350

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gtttctgccc tgagaagagg tgaagattca tgggtctcttg agatcagtgc tgggtggtcta 120  
gtcagtgtc tcttaggtgt aaaggaattt gaggccagat ggataggatg ggctggagtt 180  
aatgtgcctg atgaggttgg acagaaggca cttagcaaag ctttggctga gaagaggtgt 240  
attcccgtgt tccctgatga agagattgtt catcagtact ataatggtta ctgcaacaat 300  
attctgtggc ctctgtttca ctaccttga cttccgcaag aagatcggct tgccacaacc 360  
aagaagcttt cagtcccaat ttgctgcata caagaaggca aaccaaatgt tcgctgatgt 420  
tgtaaatgaa cactatgaan aaggaaatgt cgtcctggtg ccatgactat catcttangt 480  
tccctcctaa aa 492

<210> 2351

<211> 432

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-046-Q1-E1-E8  
  
 <400> 2351  
  
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 ctcatattggg tttttcattt tgaaaagaag gaccattttt tatctctctc tttgttttgt 120  
 tttctcgaat ctgaaggagt aaagttaaaa gctttgaagg agagaatcaa tggcgggtta 180  
 cagagcanat gatgaatagc attacctatt caaggttgtt ctgatagggtg attcagggtg 240  
 gggcaaattcc aatttgcttt cactgattcac gaagaacgag ttttaagtctc gagtcaaaaat 300  
 ccacgatcgg ggtcgagttc gcgactcgga gtttgaatgt tgatgataag agtcatcaaa 360  
 gctcagattt gggatactgc tgggtcaaaga aaggtancga gccatcacta gtgcgtaata 420  
 ccgangagct gt 432

<210> 2352  
 <211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-046-Q1-E1-E9  
  
 <400> 2352

gcgattacct cccatgggaa aaatctctga agtgattatt tagcactact ttttctttgt 60  
 ctctttctga atccattttt tatggatctt ggagttcgtg tttctggtca tgaaaccggt 120  
 tcttctccgg gtcaaactga actcggatct ggtttcagta acaagcaaga aagatccggt 180  
 ttcgatgggtg aagattgctg gagaagttca aagctctcac gaacatcaac tgatggattc 240  
 tcttcttccc ctgcctctgc taaaacgctg tcgtttcatc aaggcatccc tttactgaga 300  
 tctaccacta ttaatgatcc tcgtaaagga caagaacaca tgcttagctt ctcttctgct 360  
 tcaggcaaat caagatgtct caccttatct tcagtactgt agaaa 405

<210> 2353  
 <211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-046-Q1-E1-F11

<400> 2353

aaaaaaatca tggagatgac cgaagcttcc aaacagacaa cagcagaagg atcagcaaat 60  
ccagaaccag accaaatctt gaggccgaga agatcggttg agctaaaaca aaagaaatgg 120  
tggatctctg tttctttatg tattttctta gtcttgctcg gagattctct agtcatgctt 180  
ctcttgaact tcttctatgt tcaagacaat cgagaagata gtgaccaaga tctacaatac 240  
cgaggaacat ggttgcaagc tctgggtccaa aacgctgcgt ttccactact cattcctctg 300  
tttttcattt tcccttcacc aaaacaaaac caagaaacca ccaatactcg tttcctctct 360  
tttcgtctca tcttacttta catctctctt ggtgttcttg ttgct 405

<210> 2354  
<211> 451  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-046-Q1-E1-C7

<400> 2354

ccatccagcc gccactgggt ccttcagttt gattttaagg caattgangc agcaacgaat 60  
tgctttttgc caattaacaa gctaggtcaa ggtgggttcg gcgaagtta caagggtaca 120  
ttgagtagtg gactacaagt tgcggtgaag agactatcga agacatcagg acaagggtgaa 180  
aaagagtttg aaaacgaagt tggtgttggt gcaaagctcc aacatagaaa tttggtaaag 240  
ctgcttggtt attgtttgga aggagaagaa aaaatacttg tctacgagtt tgtgcccac 300  
aagagccttg atcacttcct ctttgactct acgatgaaaa tgaactagac tgggcaanaa 360  
ggtacaagga tnataggagg aatttgctta gaggaantcc ttaancntca acaagaattc 420  
acgactccca atttatacat ccangacctc c 451

<210> 2355  
<211> 450  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-045-Q1-E1-H3

<400> 2355

acgcgtccgc agcattctga ccctagacac agagtcctcc ggtcttctga taaacccccca 60  
tgtggaaggc caagacatgc ttccgtcaga ttacttgac cgtactaata cggcgggtact 120  
cgagagtcgc tccgccgccg tcttcggtga tccgcgtgac aaacaacgta gcacacctgg 180  
gaccaccgaa gcaaggacca ctgccacgtc agctgatatc cctgccgcca tttcccggtc 240  
atccattacc tggcaaaaac gccggagctg acggcgacga tggagatagc ggcggccacg 300  
tcacagctat aagctgggtc aagtactatt ttgaagaaat ctatgataag gctattcaaa 360  
ctcatttcac aaaagggcct tgttcaaant gaattttcga ngtcntaagg gatgcctcaa 420  
gaganaaaga agatgggagc tattcctatg 450

<210> 2356

<211> 489

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-045-Q1-E1-H5

<400> 2356

ccgtttacgc cngccaagta ccggtccaag aattcccggg gtcgaccac gcgtccgcgg 60  
acgcgtggga ttatttgga attccacatc gatccaagag atgtttaggc gggtgagcga 120  
gcagttcact gctatgttca ggaggaaagc tttcttgcat tggtagacag gtgaaggaat 180  
ggacgagatg gagtttactg aagctgagag caacatgaac gatctagtct cagagtacca 240  
gcaataccaa gacgcaactg cagatgacga aggcgagtat gaagaagacg aggatgaaga 300  
agagatattg gatcatgagt gaggaaaaag agctgatatt accgattttt aaatacctct 360  
cttatcttct tttcgtttgg tcggtatatg ttattgagt tccatgtatt gtttgtgatg 420  
ggtcctgtgt gtaatagtga gggtcggntc naaactttaa gccgtggttt taaatgaaaa 480  
ttgtccaat 489

<210> 2357

<211> 433

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-045-Q1-E1-H6

<400> 2357

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actactctct tttcctcccc atttttagagg ggttgacttg gacgaggacg aaggacaaga 60
agtggtaaac agaataatgt tatgccaaac acttgggatac ttgaggaatc ttgactagat 120
ggatctgaaa ctcttgagtc ggccggattg ggatcaagaa tcttaccag attcttctga 180
tttcttggtc ctcatcttct ttgctccatt cttccttttt cttcgcttaa tcctcgacag 240
atgcatattc gagagggtcg ctagaagact ggtagttcct aaaggactat gtgctgattc 300
aaacgagaga agaaagaagg tagtgaaatt caaagaatcc cgcttggaag tgtttgtgct 360
ccttctcggt ggaagctttt gtcctctac gttacttata anggagccat gggtttaaag 420
acaccaagat tct 433
```

<210> 2358  
<211> 434  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-045-Q1-E1-H8

<400> 2358

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ggagaaacac tttccgtggt ttagtgttga ggacgatcac tgtttgtaat tcgatggcga 60
ggaagaagat cagagaatat gactccaaga gacttctcaa ggagcatttg aagcgtcttg 120
ctaattattga cctgcagatt cgctctgctc aggtgacaga atctacggat ttactgagt 180
taaccaacca ggagtcattg ctatcgcca caaagctagt tgtgaaaccg gatatgctat 240
ttgggaaacg cgggaaaagt ggtttggtag ctctaaagct ggatcttgct gaagttgcag 300
actttgtcaa agcccgctc ggactgang tcnagatgga gggatgtaaa agcacctatc 360
actacattca ttgtggaacc ttttgtgcct catgatnaaa gaatactacc tctctatagt 420
atctgataga cttg 434
```

<210> 2359  
<211> 453  
<212> DNA  
<213> Arabidopsis thaliana



<223> unsure at all n locations  
 <223> Clone ID: LIB22-046-Q1-E1-A1

<400> 2359

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acgcgtccgg caatcnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnatta acacaaaaaa 60
ttatggagca caacaagggt gatacagaac ctcaagattc atatgatgat caacaaaaat 120
gggttctcga ttcttcgacc gatagtagag gagagattcc gcttcgggct caaaccggag 180
cttgagagc tgcactcttc atcattggta tcgaattcag cgagaggcta agttactttg 240
ggatctccac gaacttagtg gtctacttga ctaccattct tcaccaagat ctcaagatgg 300
ctgtaaaaaa tacgaactac tgggtctggt gtcactactt tgatgcctct tcttggangc 360
ttcgtcgcag atgcttatct cggccgttat gggaactgtc ctacttgcaa ccancantta 420
ccttaatggg cttgaatccg tttaacattg gcc 453
```

<210> 2360  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-046-Q1-E1-A10

<400> 2360

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gggcggacgc gtgggctcaa gcttcctgga caagcaccat catctcgatg tggcataca 60
gttacatctg gaggacatta tcttctgtta tttgggggac atggaactgg tggatggctg 120
agtcgttatg atgtttacta taatgatact ataattttgg acagagtaac tgctcagtgg 180
aagcgttac caatnaggaa tnancctect cctcctccan cttancaaana caagacttnt 240
attggagctc gtcactcttt aatttgtggt tttgatggaa aattgacctt cngtgatctc 300
tggtgggttaa ttcccgaaga tgatncgata gccaaaggng tcctccggtg cctcaagttg 360
ttaaaccccc ctgaaattta agaatccaga naaga 395
```

<210> 2361  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-046-Q1-E1-A11

<400> 2361

taatcttgtt tctcttcac tccattgac gtttcttct atcctcgttg ccttcatttt 60

tcactcgcac gctaactctt gcctactttg ttagattttc ggttttgggt ttttgtcttt 120

tggtcgattt cccctgttcc cagaatctcc gattaagctg cttccttaat ctctgtctg 180

aataaacttt ttccgggggt gtaatttana nangtgggta aaattacgaa gtagtgagag 240

gagtgttgtt gctgttttgt ttattcggta aaacgaaatc ggaagttctt tgttgcgtt 300

tgattccttt tgagaaagag agatgttggg gaactgggat ttttaacttca ctcaagcttc 360

aagaagagct caaattgacg tccncttaag ggctggcaag attcgaagtc 410

<210> 2362

<211> 481

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-046-Q1-E1-A3

<400> 2362

cggtaggcct ccgaaaattc canggtcgac ccacgcgtcc gcagtaaaat ggccaaaaac 60

tctgtcgaat tcgatcgta catcgagcgc aaagctttcg acaatacaaa agaaggtgtt 120

aaagggctca tcgatgctaa aatcaccgag atccctcgaa ttttccacgt cctcaagat 180

accttaccag acaagaaacg ctctgtttca gacctagaga tccctaccat cgactttgca 240

agcgtcaacg tggacacacc ctacgtgaa gccatcgtgg agaaagtcaa atatgcggtg 300

gagaattggg gattcttcca ggtgattaat catggtgttc ctttaaactg tcttgaagaa 360

gattaaagat ggggttcgta agtttcacga ngaagaanat tctgaggtca agaaatcata 420

ctactcgctt gatttcaaca agaacaaaat ttgcatacag tagtaatttc gatcaaatag 480

t 481

<210> 2363

<211> 491

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-046-Q1-E1-B2

<400> 2363

```

ctgtttaccc gnccgtagcc gtccaaaatt ccanggtcna cccacgcgtc cgaagtttat 60
agcgactctt ttcctctaaa aggggtctgtc tcttcttct tctctcttca gatctccatt 120
tcacggatca atcctgtggt tgaaacaatg ggtgttgaag ttgtaaactc tgggtggattt 180
gaggttgctc cggtccttt cgaggggaaa cctgagaaga acgggaagct ggaccaagga 240
aaaggagatg atgcccccat caattttggt tcagtcggtg agctaccaa gaatgccgaa 300
gagaataata acaaagtggc caactctgat gcacccaaaa atgcagcaga agagtggcct 360
gtggctaaag cagatccact ctttctacct tgttaaatac cgttcttacg ctgaccccaa 420
aattaaagct aagcttgatc taactgataa agagcttgaa aaagttgaac aaagctcgga 480
ctggaatttt g 491

```

<210> 2364  
 <211> 480  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-046-Q1-E1-B3

<400> 2364

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ngtaggcctc cgaaattcca nggtcgaccc acgcgtccgg aagacttcac tgcttttgca 60
gatgtatgct tcagagagtt tggggaggat gtgaagttat ggactaaaat caacgaagct 120
actttattcg ccattgggtc ttatggcgac ggaatgaggt atggacattg tctcctatg 180
aattactcta ccgcaaagt ttgtacggaa acatatattg caggccataa catgttgcta 240
gtcactcct ctgcttcaaa tttgtataaa ctgaagtaca agactaagca aagaggatcc 300
gtaggcctta gtatatatgc ttatgggcta tctccttata cggactccaa ggacgatgaa 360
accgcaactg aaagagctga agctttcctc tttggctggg atgttaaagc ctttgggtag 420
ttggggatta tccggatata atgaagagaa ccttggggtc gagattaccg gtttttctca 480

```

<210> 2365  
 <211> 492  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-046-Q1-E1-C1

<400> 2365

```

ntgttacgcc tgccgtaggc gtccgaaaat tccanggtcg acccacgcgt ccgtagccta   60
cccatttccct ccttctttct ctcttctatc tgtgaacaag gcacattaga actcttcttt  120
tcaacttttt taggtgtata tagatgaatc tagaaatagt tttatagttg gaaattaatt  180
gaagagagag agatattact acaccaatct tttcaagagg tcctaacgaa ttaccacaaa  240
tccaggaaaac ctttattgaa attcaattca tttctttctt tctgtgtttg tgattttccc  300
gggaaatatt tttgggtata tgtctctctg tttttgcttt cttttttcat aggagtcattg  360
tgtttcttct tgtcttccta agcttcttct aataaagtcc ttctcttgtyg aaaatctctc  420
gaattttcat ttttggcca ttggagctat cttatagatn acaaccagag aaaaagatna  480
aatccttacc gt                                                         492

```

<210> 2366  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-046-Q1-E1-C11

<400> 2366

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aattgagtca gagaaaaaga gaaagagaga aggtaacatg gatgcttggt ttcttacctc   60
aagatcaatc tctggtgtta aagagcttgt cccgttcctc aaagcgagaa tctttacttg  120
ccccaaagaga aattctggcc aatttggttac caggaagggt gcttctccga tctctgtaaa  180
ttgttctctt tcggattcat ggaagccact ggaagatgat gctgatctct tcaaggattg  240
tgtcaacaat tctacatcag atgctgattg gagggagttc agggcaaggc ttgttgccagg  300
ggaacaagct gcaacgtccg agaaggatca gccctcgtgg tctaaccggg acatggtggt  360
ggactatcaa ccatcatcgt cctcactgat nacaattggg aagcaa                     406

```

<210> 2367  
 <211> 433  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-046-Q1-E1-C4

<400> 2367

ngtaggcctc caaaattcca gggtnaccc acgcgtccga aaaagggtag gangattcaa 60  
tcattctcaa tcccaaaatt ccacttctgt ccacaaaaca caaagcgatt ctcgatcttt 120  
gatcgtccca ccagatggcc gggaacgatt gggtaaacag ttacttagag gcgattctcg 180  
acgtcgggtca gggctcttgac gatgctcgct cttctccatc acttcttctt agggagagag 240  
gtcgattcac tcccagccgt tactttgttg aggaagttat cactggttac gatgagactg 300  
atcttcatag atcctgggtt aaggctgttg ctacgaggag tccacaagag aggaacacga 360  
ggttagagaa tatgtgttgg aggatctgga atcttgctcg tcaaaagaan cagcatgaag 420  
gaaaaanaag cac 433

<210> 2368  
<211> 489  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-046-Q1-E1-C6

<400> 2368

aaactgtctc cgccggnacg tnaaggtcca agaaattccc gggtcgaccc acgcgtccgt 60  
ttcgcaactt gtcaaagcac cagcaccttc tctctacgga gttgagatca atccccccaa 120  
atctcggtgt ggttctctta gggtttttga tcggaatcgg aatcgataat ctaaccggca 180  
tgaggccaat cctattgccg gatccacca gtctatctac cggcgtccct gatattttcg 240  
aacaaggcgg ttcccataac gtcgtcagac gcgccgtcgt catcggaac ggtttccctg 300  
gctccgagaa tcagtgtatc ggtctcgttc gtgcgctcgg cttatctgat aatcaccttc 360  
tctaacgagt gacaaggcct aaaggangac taaatgagtg gctgcactgg gctcccaatt 420  
ggttttcaca aagaagttgg actttancct canggcatat ttacctcaa tccagattga 480  
atggcntgg 489

<210> 2369  
<211> 430  
<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-045-Q1-E1-H12

<400> 2369

```

gatctctcct cctctccttc tctctatctt gccggaatac atatgatcga gtgaaacggc   60
ggacaaagct gtcgtgttga gtactaatc gccgtcgctt ttctcagtga aggagtgggtg  120
agagatgtcg agtctcgaag atatcaagaa cgagactgtt gatctggaaa aaattccgat  180
tgaggaagtt ttccagcagc taaaatgttc aagggaagga ttgacaacgc aggaagggga  240
aggacagggg tcagatcttt ggcccaacaa acctcgaaga gaaaaaagga aacaaacctt  300
ccgnaanttt ttgggggttaa gttgaatcca acttcaatgg gtccatggga aatgggtnc  360
atccatgggc caattgcctt tggcaaccgg tgatggtaag gcctccggat tggcaaggat  420
tttgttggga                                     430

```

<210> 2370

<211> 454

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-044-Q1-E1-F6

<400> 2370

```

acgcgtccgc tctgtctttc tatgcctaa tgggtgtttg gttagtgtga ctagtcgggtg   60
gctttaagat gcctctaccg tcaacttgcc ctatggaatt ctctgtatg cctgagcatt  120
ttgttgaaga tgcaatggag ttgctgatat tcgcttcaag aattcccaaa gctttggacg  180
gggtgccgct ggacgacttt atgaacttca taattatgtt catggcaagt cctgaatatg  240
ttagaaaccc gtatctcaag agcaaagatg gttgaagttc tgaactgctg gatgcctcgt  300
tcaagtagtt cttcttctgc tacatctact ctctttgagg gacatcagtt atcgctcgag  360
tatcttgtca ggaatttact gaaactanat gttgacattg agttcacggg ttcanacact  420
ccagttcnat gacaagttca atattcgcca caac                                     454

```

<210> 2371

<211> 449

<212> DNA

<213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-044-Q1-E1-F8  
 <400> 2371

```

gggtttttct ctcttcata aaacccaaaa gaaactagga agaggagtaa ataatatattg   60
ttttaaaagaa atgattctcc acaaaatggc gttcttgccc gttattctct tcttcttgat  120
aagcagcagc agcgtttgcg ttcatagccg tgaaacgttt gcttgcgata caaaggacgc  180
agcaacagct aactgagat tctgccagct ttcagttcct ataccggaga gagtcagaga  240
tttgatcgga cggttgacat tggccgagaa agtgagcttg ttagggaaca ctgcggcggc  300
gataccacgt ctagggaatc aaaagggtag gagtggtggt cgggaggctt tacacgggcg  360
ttcaaagtgt ggaccggta ctaaagttcc ggttggggtt taaccctgca gccaacagtt  420
tcccctcaaa gtcatcaacc aaccgtttg                                     449
  
```

<210> 2372  
 <211> 496  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-044-Q1-E1-F9  
 <400> 2372

```

ggaactgtta cgctgcctn tancggcccc aaattcccgg ntcgaccac gcgtccgaac   60
gcgcattaga agcttttcag ttagatcctt ctaaattggg agtcaatgtg cagtctttat  120
caggatcacc aagctaattt ccaagtttac actgcattgt tgaagcctca tgaaagaatc  180
atggcacttg atttaoctca tgggtggacat ctttctcatg gttatcagac tgacacgaag  240
aaaatatcgg ctgtatccat cttttttgag acaatgccat acagattgga tgagaacact  300
ggttacattg attatgacca gctagaaaag agtgccgtgc ttttcagacc gaaacttatt  360
gttgcggtgt caagtgttga tgctcgtcta tatgactatg cagctattcg taaggtctgt  420
aacaagcaaa aggcagttat gttggctgat atggctcata ttaatgggtt ggttgctgc  480
tggcgtaaat ccttcc                                             496
  
```

<210> 2373  
 <211> 498

<212> DNA  
 <213> Arabidopsis thaliana  
  
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 ctagagatag atggtttaag ggaagcaagc agagtagagt tattgctgct acagggatgg 180  
 tttcttctgt gattgcgaag gattacttga agccaaaccc tgtgcgaaaa gagtttccta 240  
 tgatggaacg gtctaaagag ctctgtggga acgggaaaaa agctgcggat agagagaaaag 300  
 ctgaacagtt cttaagttca atgcttggag atgattgcga agcttagcat ggctgttggt 360  
 agagatgttt tgtgtcaatg tggctatgaa tgtcgacatg ggcttttgaa atgtcctgcc 420  
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<210> 2374  
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 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-044-Q1-E1-G12  
  
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 aaaaaactcg ggagattttg tgatacttgt ggagacttgt cgtctactgc agagtttcgt 180  
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 tttggtggat tttagagtaa agaaacttgc atttacctgt atcgaggcga tacaccagaa 300  
 taggaaccgt ttaagggatc agctcttagt tactcctgaa gaagctagca tttcaacagc 360  
 tatcttgatg gaggcagttt cggtgttgct agatcctaaa gctgccttgg gtctgcaaaa 420  
 taagttaagt taacctacaa aaaa 444

<210> 2375



<211> 488  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-044-Q1-E1-G2

<400> 2375

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gccggtgggt aatgataagg cgtagatat ttctgatgat gatcatgatg atgagaatga 180
accgcttatt gtttctggtg aatgtcgat ttgttctgat gagtctcctg ttgagaatct 240
tgagagccct tgtgcttgca gtggcagcct aaagtatgct catanaaaat gtgttcagcg 300
ttggtgcaat gaaaagggaa acattatatg cgagatttgt caccaacctt atcaacctgg 360
gatataccgc tccacaactc caacttnaac ctgaagaaaa caactaatga cattggtgga 420
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<210> 2376  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 2376

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cagcaacgga atatcaaaga tcattcggga ggtcttttct gaatttacgg cgagacacgg 240
cgggtgaactc ggttgaagtc aacgaagggt acccccaggt tgactcaaga tggaagcaga 300
gcttgtttcg tttcagagaa aagttgctga gaggtttatc gatctcaatg cgtctagttg 360
tgaaagattt actgtctccc gaatgggggt ggggaaacct ccttgattcc gtttcnaacc 420
ttgtcaaaga aananttccg ttncanaag tcatcaaac atcngttccg atgantaact 480
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517

<210> 2377

<211> 455

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-044-Q1-E1-G5

<400> 2377

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taaagaacaa gctgcagaat ctggctgggtc agcgttctga tgtgctcgag aatctgactc 180

ccaatgtgag aaagcgcgtt gatgccttga gggatataca gagccaacat gatgaactag 240

aggcaaaatt ccgtgaggag agagctattc ttgaagccaa gtatcaaacg ctgtatcagc 300

ctttgtatgt caagcgttat gagattgtga atgggcacta ctgaagttga actggctcca 360

gaggatgata ccaaggtgga ccaaggagag gagaaaactg cagaagagaa aggagttcca 420

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<210> 2378

<211> 497

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-044-Q1-E1-G7

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caatcttctg agaacagagc tgttgaatca gctgttcac aagttgctct tcaagcattt 120

gcttttctaa gtgagaacac tgctgctcag actgttggtg cttccattgc gagtgaacca 180

aaagtatggg atgctgttat ggagaataag gatctcatga aatttcttca gaccaacaaa 240

accgctgttt cctctcaagt tgaatctgac aatgacgacc aatctgaacg ttcgagcacg 300

actgagtgtg aagtcgtgga aactaagcca atggaactct tagagattct gcaggacatg 360

aagctaaaag ctgttcggtt gatggaaaat gtatcttcct actttggtga cttgtttggg 420

gttaggatca gttacagaag atggaaaaga caagaancag acgttggttca atgacctcgc 480

ttctctgttt ggattaa

497

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<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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gatctaaggg catatggatt gggttgtgat tggagacgct cgtttgtgac cactgatggt 180  
aatcccccttt tcgatgcctt tgtgaggtgg cagatgagga agttgaaatc tatgggaaag 240  
attgttaaag accgcaggtg cactatatctc tcaccttttag atggccagcc ttgtgctgat 300  
cacgaccgtg ctactgggga aggtgttcag cctcaagagt atacactcat aaagatggaa 360  
gtagtcaagc cattccctct gaaactgggt cctttggaag gcaagaaant gtttttggct 420  
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<210> 2380  
<211> 446  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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agttgggttg gactacagat acatgccgcc agttgctaag ctaatagaac aagtaaaagg 180  
cagagacttt ggtaatgtca agatggtagc aatccgagaa catagattcc ctttcttgggt 240  
taaggatgaac aactggaata gattcaatgt gaacactgga gggaccttag tggagaaatg 300  
ctgccacttc tttgatctaa tgaggctctt tgccggtgca aatcctgtct gtgtgatggc 360  
ttctggangc atggatgtga accacaagga tgaagtttat ggtggaaagg tgctgatata 420

aattgataac gcatatgtta ttantg

446

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<211> 466  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-044-Q1-E1-H1  
  
<400> 2381

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ggaggaaatg ctcgatcgga tgctgacgag actcgctctt tgcgacgact ccaagctcga 180  
atccctagtc tctaacctcc ttctctttac catatcttct ctttcttctc aatctcccggt 240  
tgttcgcaac aaggttcttg agatattgag tcatgttaac aagagagtga agcatcagca 300  
tgaaattggg ttgcctttat tggttttatg gaaattgtac acagatcctg ctgctgctcc 360  
taagggttaag gaacttttgc tattggmcaa tgttgagatg gcttttgaac gaactccctg 420  
caaaaggaaa agggaaggaa attgcaccct aatacactgg nggaat 466

<210> 2382  
<211> 503  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 2382

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tgtgattgtg attgtgattg tgattgtgat tgtgaggaa ttatggctca agccgtagaa 180  
gagtgttaca agcagatgcc gattataacc cggtcgtatc tcacggcggc tgtagtcacc 240  
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gatttggact ttttgtcca tangtttttt ccaaccccaa tactgcaaac tgctcgaaga 420

aaaactcctt canggggaaa agaccgccgg attcccttac atgcccttaa ttcgggggca 480  
actgntccta actgggtaat tgt 503

<210> 2383  
<211> 508  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-044-Q1-E1-F4  
  
<400> 2383

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aaacgcagtg agccaaatca agatgggtga cgccaactac aattagaacc gtcgatctcc 180  
gctccgacac ggtgactaaa ccaacagagt caatgcgttc agcaatggca aacgcggaag 240  
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gcgtgttggt ccattgtgat gagagaagga attgaagtga ttccntggga gaacactctc 420  
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<210> 2384  
<211> 496  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 2384

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cgtcttcttc ctctctttcc cacaagctcc cattgatata gagagagaga tttaaggaag 180  
gaatcatggc aggggggtgga gtcccagcac ccaaagcaga cgaaccacaa ccacatcctc 240  
ctaaagatca acttcccaac atttcttatt gcacaccag tcctcctcct tggcctgaag 300

ctattcttct tggattccaa cattaccttg tgatgcttgg gacaacggtg ctcataccta 360  
ctgctcttgt tccccagatg ggaggtggat atgaaagaga aaggcanagg tgattcagac 420  
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<211> 505  
<212> DNA  
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<223> Clone ID: LIB22-044-Q1-E1-D8  
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ttgaggattc aaccattcaa cgatagggtt tatttccta aatggtatct caaagggtata 240  
agaagcagcc ctttgcatc aggtgctctt gtcagcaagt ttgtcaatgt taacttaggc 300  
tcatacctcc ggttcttgaa ctggatgccc gcggtctctaa agatgcctga gcctgagctt 360  
attgatcatg ctggattgga ttccgctgtc tacttgaagg atttacttga tagggcttaa 420  
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<210> 2386  
<211> 494  
<212> DNA  
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tcttctcccc ggttgggttg catctggagg tgacccatgt ggtgagagct ggcaaggtgt 240  
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cattggagga agtatcccat ccacgttgcc tgtttcattg cagaacttgt ttctttcagg 420  
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<210> 2387  
<211> 504  
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gatcacaagc caaagttcca gtcgacgacc aattccgagt ggtcaacgaa ggtggctaca 180  
ccgattacag tcccatcgaa tacaaccccc acgtacgtgg ctctgtaccc ttcagtgaca 240  
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gaaacagagt ccaagaatcc actctcagat gggctctggga agcaaacaga ggctcaccgg 360  
tcaaagaaaa cgcgacgttg acttttggcg aagacggaaa cctcgtactc gctgaagccn 420  
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<210> 2388  
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<212> DNA  
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<223> unsure at all n locations  
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 ttccgtgtca ctcttctaata ccaatttgca attcttttaa tttcaaaaga cgttcgttct 240  
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 ccaagctttc tccaattcga acccattcct ctttcgctgc gtgtggctgc tcctggattc 360  
 aagacaattc antggttcat gattatgcta caacaactaa tgggacgttc aaagcgttgc 420  
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 <212> DNA  
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 <400> 2389

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 aaagaaattg ccgatcgggtt tgctactgtt caaaacctcg gtgccgagaa ccgaaactgt 180  
 cggttttttc ggttcgggtt tctcggtttc ttccgaactc ccaggcctag tttggtttta 240  
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 cgttaacgat ccgactcgag cgtcgacagt aagagaagaa gacagcgatt gtgtgtagat 360  
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<400> 2390

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cgtgaaccaa ctccgtattc taacttagag gccatgggaa aagcttctcg agacaaaagg 180  
gatatctatt atcgtaaagc taaagaagaa ggatggcgtg caagaagtgc ttttaagctt 240  
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<210> 2391

<211> 495

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-044-Q1-E1-F1

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taatcggtag ggagtgattt gagttttggt gaggatgtct atggttgatg agcctttata 180  
cccgattgct gtgcttatcg acgagctaaa aaacgatgat attcagcgta gattgaactc 240  
tattaaacgg ctttctatca ttgctcgtgc tcttggagag gagaggacaa gaaaagagtt 300  
gattccattt cttagtgaga acaatgacga tgacgatgan gtgcttttgg ctatggcggg 360  
aganttgggg ggttttaatc tgtatgtagg aagggttgag tatgcataat gttcctgcnt 420  
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<210> 2392

<211> 445

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-044-Q1-E1-F10

<400> 2392

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atcctcctgt tggattctta cattagtgtt gtcgttttcc atggaatgac cattgcacag 180  
tggcgcaact tgggatatca aaatcagcct gaacaccagg catttgccca actcttggaa 240  
gccctcaag aagatgcgca gatgatcatt cgtgatcgtt tccctgtacc aagattaagt 300  
tgtttgtgat caacatggat nccaggcaag gtttctgtta gcaaagctaa atccgtcaag 360  
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<210> 2393

<211> 508

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-044-Q1-E1-F11

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gatcgtcgga gcatcttctc ccggagacga caagaccaag cgcgatcatc acaaacaac 180  
aaccggagtt tcttgcacga cgattcacgt tcatgtccct cgtgctctgg ttcgaccagt 240  
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ctttgatctc tcacttcttg ctgctttgct ccgactgcga tttccatcac cgacgtccgt 360  
annacgttat tgtgcagctt gngntaatch annttcgcat gnaacctttt gccgatagcn 420  
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<210> 2394

<211> 492  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 2394

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gaagaaatct gaagctctga gacagatgat tgaaacccta gataatcaaa cgcaagagct 300
cgattgagtt actcaagcat cgtgaggtga ctatagacca cagcgtcgag atcgcgagg 360
ggaaagtga ggaacgccgt tagagccggc gttggattcn cctgggagaa agctagagac 420
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<210> 2395  
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 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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tanctcgccc acgactataa attggtgctg ggtatcatgg gctttgccct ggctacaaat 420
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cggattatca tcggaattcg gaaaaagatg gatcggaatc aaaagatgga tcacgttatc 360  
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gctgggggga aaaagatgag cgtccaaacg attccaaaga tcaagtttcc gaaacttant 420  
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 tcntgaaact cctccaagag gttgacatcg gggcctgaaa ctatcaagnc gctgaaaaga 540  
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<210> 2398  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 2398

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 tgggtccagct tatgttcacg tctttgtag catcttacgt gatataattca aggaagaaac 300  
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 ctttgaagg gaaatttggt caatcaagaa aanag 456

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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 2399

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 agtcaaactg gagttgaaga ttccgcgctc tttgaatctc ttagtcttag tcctgtatgc 180  
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gaaggtcgat gggacgctcg tcttcactct ctgaaaaact acgcctacgc gacgaacata 300  
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<210> 2400  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tcaatgctcg cagcgatggt tagtggtcga catgcaatgt gccaggaatc caaaaaggga 240  
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 ggcgttattc ctaagtctgt cagatcctga ttgtttctgaa cttttgcggg aagcagacta 360  
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<210> 2401  
 <211> 518  
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 <213> Arabidopsis thaliana  
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 <223> Clone ID: LIB22-044-Q1-E1-C3  
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 gcgcgtgggt taciaaaccca cctgaaaact acgaatcttg gtctggcaaa aaccgtttcc 240

ttgttcacga cactctctat tttagctacg ctaagggagc tgactcgggtg ctagaggtga 300  
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attctgagat ctctccttga tcgttatggg cccgttttac ttcacagtg gcaatgaaag 420  
attaactgta angaaagggg caaaaagcct aatgtcgttg tcataatccn gctaaggatt 480  
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<210> 2402  
<211> 515  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-044-Q1-E1-C4

<400> 2402

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ncaatcaacc aaagatgctt gagattcttc aaatcaaggg tggatcaatgc ggtaaccaga 180  
tcggagccaa gttctgggga aagtggtttg cgccgagcac ggcatcgatc caaccggaag 240  
gtacaccgga gactcagatc tgcaacttga ggcacatcaa cgtttactac aatgaagcga 300  
gttgcggtag attcgcttct cgtgcagtgc tcatggattt gggagccttg gactatggat 360  
agtctcagat ctgggaccgt acggtcagaa cctttccgac ctgataacnt tcgtctttgg 420  
tcaatcccgg tngcggggta acaaacttgg gccaaagggg aactacact tgaaaggagc 480  
ctgaactaaa ccgaattccg ttcncgaag gtttg 515

<210> 2403  
<211> 436  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-044-Q1-E1-C5

<400> 2403

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tgaattcccc ttgcgatca aagaacggga atgggaattt atcagtatct tggccacgga 180  
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 ttctgctaag tattgtccgt tatgcacca tggaaggctc ggtagagctc catctatgcc 300  
 cgactctgaa ncaaattggct gacggattct ccgctgtacg tttgggannt caaaattggc 360  
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 ccgatggaca agtcca 436

<210> 2404  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 2404

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 cggaggcgaa gatgaagaag gaatggatgt gaatgagatt gagatgatga agatgttagg 180  
 gattcctact ggatttgatt ccacaaaagg caaaccagtt gctggtgctg atgttagtgg 240  
 tattagagct gtaactaagc gtcagccaag acagtacatg aaccgtcgcg gtggatttaa 300  
 ccgtcctcta ccggccgagc gtaatcgcta gtcttctcaa ggtccctcta acgctgtctt 360  
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<210> 2405  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-044-Q1-E1-C9

<400> 2405

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agatgctcaa ctttaagaaat gggttatagc tgaaccagag acaaagattt cgagaatcga 180  
 gcatgaccat gagtttttga tcttggcatc tgatggttta tgggataaag tgagtaacca 240  
 agaagcagta gacattgctc gtcctctctg cttaggaacc gagaagccat tgttgtttagc 300  
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<210> 2406  
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 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 2406

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 accggtcaag aagatctcta tgaagctcaa gatcaatggc cggttgagtt acgccgtgct 300  
 cgtgtagtta cagcagtaga ttacattcan gctcagagag ctcggtggtaa gttgattccg 360  
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 aaag 424

<210> 2407  
 <211> 497  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-044-Q1-E1-D11

<400> 2407

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ctcttcatac atatctcaag cagataaagt tgatcggata ctagaatggg aggaggattt 180  
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aggaaggttc cattcagaga gaaggttatc tacactgtca tctctctctt catctttctt 300  
gtctgcagtc agcttctctt ttatggaatc cattccacca ccggtgcgga tccattctat 360  
tggatgcgtg tcattcttgc gtccaaccgt ggaactgtca tggagctcgg tattactcct 420  
attgttacat ctggacttgt gatgcaactc ttggctgggt ccaaagatta ttgaagggtt 480  
acaacaatgt tccgtga 497

<210> 2408  
<211> 412  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-044-Q1-E1-D12  
<400> 2408

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gacatcagct gatctcttga tgtctgctat ggatctcaca cgtgatcaag ttgaagggtg 180  
ggtcagagcc gtggaaccgg acctgatctt ctttgaactt gctcattgga ttccagaggt 240  
agctagagac tttgggcctt aagactgtaa agtacgtcgt ggtatctgca tcgactatag 300  
ctagtatgct tgttccaagt ggtgagttan gtgttctctc gccgggatat ccttcacgga 360  
aggtgctgct tcgtaaacia agatgcttac accaatgaag aatccnggat cc 412

<210> 2409  
<211> 505  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-044-Q1-E1-B2  
<400> 2409

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 cagggatata gagaagatga aggttttaaac ttagagagtg atgctgatga acaacttctc 300  
 atctatattc cttttaacca agttatcaaa ctacattcct ttgctatcaa aggccctgaa 360  
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<210> 2410  
 <211> 494  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 aatngagatt gtct 494

<210> 2411  
 <211> 503  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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ttcgggtggt atagctcaag tccctccgga gaaacaattc agagtcgtca acgaaggaga 180  
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cgaatcgaa caaccccgtc ggagaaaacg ctacactctc actcggggccg taacggcaac 420  
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gcgtcacggg gattccaaat ctt 503

<210> 2412  
<211> 417  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 2412

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tctgtgtgag gtggcaccgc agctcctact ccagccatcc agccatccat aattgctgtg 180  
gaaagaagct ctaattggcc agtggttact cctgaaacat catctgctgt aacagagaga 240  
aactcaaac tttctgcaag ccatgaccta atctgtcttt gcagttcacc aaccggaagt 300  
gtgaacaant aaagcagcta agggtttgtt tccaatggna aaaacttttg gttcaacct 360  
ggtanctccc tcangctttc ctccagtcac ttggctggcc tcccgaatta tcccaan 417

<210> 2413  
<211> 487  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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 tctcaaaagc catctctgtc cgtttcatga gtaacctacc ggaaaacacc gtctacggag 180  
 gaccaaagcc aaaaaaccca aaccaaagag tgacgctaac gcatctcaga caaaaacacc 240  
 ggagaggaga accgatcacc gtcgtaactg cctacgatta cccatccgcc gttcatttag 300  
 acacagctgg tatcgatggt tgtcttgctg gtgactcagc ttccatgggt gttcatggtc 360  
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<210> 2414  
 <211> 443  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-043-Q1-E1-B6

<400> 2414

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 cgttcatagc cgtgaaacgt ttgcttgcca taaaaggac gcagcaacag ctacactgag 180  
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 caaagggtac gagggtggt cggaggcttt acacggcggt tcaaagtgg gaccgggtac 360  
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 ctccttcaat ncttccttg ggg 443

<210> 2415  
 <211> 453  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-043-Q1-E1-B7

<400> 2415

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aatatccac gtcccaaacc gcggccgaag aagaagatat tgcttaaaaa gaagctaaaa 180

atcgttgtaa attctgctac aaaaatgggt gaggaagtcg atacttcctt agagcctagt 240

gcaagtcaac ttctgtgcc gaagtgccac tgtgcggtaa agagcaccag cactgaaaac 300

cacccgccct cgaatactag tcatactact gataaaaatg tcagtataga agcagatcaa 360

gaatcactcg caagcccgcg tctcatcgc attgtgaagt gtaataaaag aggccaacaa 420

ngggttcctc ggattcctgt gaaggttagt gat 453

<210> 2416

<211> 446

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-043-Q1-E1-B8

<400> 2416

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tgggttcccg gagattcaca aagccacatc acccactcaa accctccact ctaaccagca 180

agactgccat tggatgaag aaaccatcga tgatgatctc aagtgggtctt ttgccctcaa 240

cagtgttctc catcaaggaa ctagtgaagta ccaagatatt gctctgttgg acaccaaacg 300

ttttgaaaag gtgcttgtga ttgatgggaa aatgcaaagt gctgagagag atgagtttat 360

ctaccatgaa tggttgatnc atcccgctct ccttttccat cccaanccca aagactgtgt 420

ttaaaaatgg gaaggaggtg aaaggc 446

<210> 2417

<211> 480

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-043-Q1-E1-B9

<400> 2417

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ttgtcctttc agattcatcg ccacctgcta tgtcttctct tcttggtggt agcagagatt 180  
caagcgtgca ctctcagggt ggcagcagtt cagggccaaag ttcaaggagt tctcgggctt 240  
tacgagaagt tgtgtcttcc ctctctattg aaggccgtat gctttttgta gcagatgtgc 300  
tccccctctc tgatactgct gctactattc aatcattata ttcagaacta gaatactgtg 360  
gtgtcgaagt ctccggagaa tccttaatga aaaaggatgt tggaaaaact ctggggcgaa 420  
aaatgattct ttcaaccan cataattttg ccaaaggaga aaagaatggg tggtttttaa 480

<210> 2418

<211> 172

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-043-Q1-E1-C10

<400> 2418

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acattattat aaagccaact agggaaaaca gaggtacttc aagtaagggc aagacaataa 120  
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<210> 2419

<211> 418

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-043-Q1-E1-C11

<400> 2419

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accgccgtcg gatctccgga gaatgctcct gcgaaaggac gtgcttcggt ttacagtga 180  
gttcaatcaa gccgtattaa caacactctt cctttgcctt ctgttctcaa aggagctttc 240  
aaaatcgtcg aagggtccgc tagttccgcc gccggggaat ccagatgaga tagcgaagtt 300

gtttccgggt ctatatggcc agccatcagt agcagtgggt ccagatcagg atgcaccttc 360  
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<210> 2420  
<211> 433  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-043-Q1-E1-C4  
  
<400> 2420

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gccagcatcc atgatggcaa agtgtgaccc tcgtcacgga aagtacatgg cttgctgttt 120  
gatgtaccgt ggtgatgtcg tccccaaagga tgtgaacgca gctgttggca ccatcaagac 180  
caagcgtact attcagtttg tggactgggtg tcctactgga ttcaagtgtg gaatcaacta 240  
ccagccacca actgtttgttc caggaggtga tcttgctaaa gtccanagag ctgtgtgtat 300  
gatctcaaac tccaccagtg ttgctgaggt gttctcccgt attgatcaca agtttgatct 360  
tatgtacgca aaacgtgctt tcngttcact ggtatgttg tnaaggtagt gaaaaaagga 420  
gaaatttcaa ang 433

<210> 2421  
<211> 423  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-043-Q1-E1-C5  
  
<400> 2421

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ctgnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnngct ttggtcaaac 180  
ctgaatccga gacacgaaag ggcctttact tcttgtcgaa tcttgaccag aacatcgccg 240  
tgattgttcg tacaatctac tgtttcaaac ccgaggagag agggaacgag gaagcagtcc 300  
aagtgatcaa gaaagctctg agtcaagttc ttgttcatta ctatcctctc gctggacgcc 360



tcancatcag tcctgaaggt aaactcncag ttgactgtac cggaagaagg attggngttt 420  
gtg 423

<210> 2422  
<211> 488  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-043-Q1-E1-C8

<400> 2422

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cattgatcta ctctctatcc ttctctccc acagatagta gttttagccg ttattccaag 180  
cgtcaaccag ccagtctctt tgctaacaaa agactacctt aaattttcca taattgctca 240  
atatgttcct cggattctcc gtatgtatcc gctttacact gaagtgacaa gaacatctgg 300  
cattgttact gaaacagcat gggctggagc tgcttggaac ctctctctct atatgttagc 360  
cagtcattgtg tttggagctt tatgttactt aatctcagta gaacgagaag acagatgctg 420  
gcaagaggca tgcgagaaga caaaagggtg taatatgaaa ntcctcnact gtgaaaacga 480  
ttggtaac 488

<210> 2423  
<211> 436  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-043-Q1-E1-C9

<400> 2423

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aaaaatgtca aattcccatt tgggtactct ctgtttcatc atctctttac tggggttggc 180  
caatttctca ctttctcaaa ccggtctcga tgattcgact atgcaatctc tcaaatcaag 240  
tctgaatctt acatcagacg tcgattgggc taaccctaac ccttgtaaag ggcaatctgt 300

tcaatgcat ggaagtaatc gtgttactaa gattcagctt aaacaaaaag gggatttcgt 360  
ggaactcttc cctactaaat ccttcagagt ctctctgaat tgggtaattc tccgaagctt 420  
ttttctcaat cgtaat 436

<210> 2424  
<211> 406  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-042-Q1-E1-H9  
<400> 2424

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tgtacctata tccaacctga aaatctcaac caaaacaaca ccggaatgg actccgacct 180  
gcgattagac gaccatctag taccgacgat ccaaaatcta atgttgaagt cagaagaaga 240  
aacagatcca aagataaatc cgaattcgac gaaagcaatg ctcagatctt tcgaattaag 300  
ctcgatgaag atcatctcag atctcgaatg tatttcactg agtacaattc gctattcgctg 360  
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<210> 2425  
<211> 481  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-042-Q1-E1-F4  
<400> 2425

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gattccattt catggtgaca atcatggtga gcgtgattgt ggcgtctctc gtgtatgcag 180  
caccaaggat tctgaacatt ttagcctatt tctggcctct gtttgcgta acagccgcct 240  
tcttagcgat ggcaatcacc tttggtggct ttcaacagct ttcagaagaa gccaccggcg 300  
agagactgat ggattacgtc gccggacggc ctgaggattc tcacaagtae gactgacaaa 360

gatttgcaca caaaaacaac ttgagagacg atatagaagc taccacctaa gatgagtaga 420  
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 g 481

<210> 2426  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-042-Q1-E1-F7  
 <400> 2426

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 tgtcgtcaac tagaatcact actctttatt ccgacaattc catcggcgat caacaaataa 180  
 aaacaaaacc tcaagtccct caccggttat ttgctcggag gatcttcggt gtaaccagag 240  
 ctgtaattaa ttcagcggca ccgtctccgt tgccggagaa agagaagggtg gaagggtgaga 300  
 gacggtgtca tggtgcgtgg acaagtgtac aacaagagaa ttgggagggt gaacttactg 360  
 tccaaggaaa gataccact tggctgaatg gnacg 395

<210> 2427  
 <211> 486  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-042-Q1-E1-F9  
 <400> 2427

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 actgccatgg cggcttcttt ctcttccact gctcccacga caccggttct tcgattcaga 180  
 gccactact ccaagcctct cctctctctc ccagattcgt gtttgaggat aatctcttcg 240  
 gcgatatctc cctctacacg cttaattgcg tggtcgttca agacagacaa gcttccgctc 300  
 ggtgccggcg tcaatctctc cgggtggcccc gttgtcaagc gctctctaca gaagagattg 360

gtgataaggt ctgctactat tgaagaaata gaagcagaga agtctgctat tgagactgat 420  
 gttaaatacaa agatggagaa gactattgaa acgcttcggg acgagtttca actccataag 480  
 ggagag 486

<210> 2428  
 <211> 495  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-042-Q1-E1-G10  
 <400> 2428

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 ccgcgtgttt tttttagaat aacaataaaa aatttgtaca cacatgggtt attattgtag 120  
 ataataattaa tatatatcaa acgaaatttt aaaagtagat gatttatgaa aataattttt 180  
 gcttatttta attagttctt gagtaaaatt atttatacat tctagatatt aaataatgtt 240  
 gaatttttaa ttgaataaac actttattat atataaaaat tgaaaaacaa agcaagccga 300  
 ggaatctctc tctaacttat ctccaagacg gaccaaacca gtttttagttc tatctctcaa 360  
 tctctctgat cagctccatt tccaattttg ttggaaagta gatacctttg agaactctaaa 420  
 ggatctccct ttatggcgga taaggacgtt ccttttgggg ttgaagatat tggtcagacg 480  
 cctttaactg ggta 495

<210> 2429  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-042-Q1-E1-G12  
 <400> 2429

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 cagcttatag gaagctgctc tttttgtttt gaacaatgtt gctaactttt cagattctta 180  
 taattaatca gtcttatgat gagaagttgg ttcttgatta catactacaa tcaagaagta 240

aacagtttat gcaatcttgt gacggttctt gtgttcaaag agtagatact tgttcttcaa 300  
 ggtggagggtt aacagaggac aattgacggg gtttttaatc gttgttgat tgctcgaata 360  
 aacggaatca tggaaaggta taagattttg gaagagctgg tgatggna 408

<210> 2430  
 <211> 483  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-042-Q1-E1-G2

<400> 2430

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 tctttggagg aaccttgta gctatgtgt caagtgattt catctgcttt tatgattggg 180  
 ctgaatgtag gctgattcaa cgtattgacg tcaactgtaaa gaatctatat tgggctgaca 240  
 gtgggtgattt agtagccatt gctagtgaca catcattcta catcttgaaa ttcaaccgcg 300  
 acttagttac ctcacatttt gatagcggaa gacctactga ggaagaagg gttgaggatg 360  
 cttttgaggt tctccatgaa aatgatgaac gtgttaggac aggtatatgg gttggtgact 420  
 gtttcattta caacaactct tcctggnaac ctaactaacg gggttggang gcaaaggtaa 480  
 cca 483

<210> 2431  
 <211> 52  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-042-Q1-E1-G5

<400> 2431

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<210> 2432  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-042-Q1-E1-G6  
  
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 ttctctcgat ggatttggtc ttctacaggg tggcgaggag aaaaatcgat actgtactga 180  
 tcacaccgag ctcttcaggc aagagagtta ttttgcttac ttgtttggag tcagagagcc 240  
 agatttctat ggagctattg acattggaag tgggaaatct atccttttta ttccaagggt 300  
 gcctgatgat tatgctgttt ggttgggaga gattaagcca ttgtcgcatt ttaaggaaac 360  
 atatatgggt gacatggttt tctatgtgga tgagantaat caagtcctta aaggaccaan 420  
 tt 422

<210> 2433  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-042-Q1-E1-G7  
  
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 aagttcattg tctcctgatt ccagcaaagc tagcaatgcg gctgcacga tcttcgcggt 120  
 tatagacaga gaatcgaaga ttgatccaag tgatgagtct gggagagttc ttgataatgt 180  
 taaaggagat atcgaacttc gtcattatag tttaaataat ccttcaagac cagatgttca 240  
 gatcttccaa gatctctgtc tgtctattcg cgctggcaag acaatagctt tgggttgaga 300  
 gagcgggagc gggaaatcga cagtgattgc gttgctacag aggtttttacg accctgattc 360  
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<210> 2434  
 <211> 432  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-042-Q1-E1-H1

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ccggcggagg tatcagatct cgccgatctg ttgtagcagc tactgtatct tgggcttctc 180

atttgatatt ggggaaacga ggagtagagg acgatggaaa atctgatctc tctggttaac 240

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ctttgggatt ccttgccctgc gatcgccgtc gttggtggtc agagctcagg gaagtcttca 360

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aagggccct tt 432

<210> 2435

<211> 425

<212> DNA

<213> Arabidopsis thaliana

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tgtagataaa cctacagaga ggaaagcagg cttcaciaag atcagtcctg ctgcaaagct 180

attgatttta gaacatggat tggaggcatc atcaattgag gcacggggtc cctatggtac 240

attattgaaa tcagacgttg tggccgcaat tgcttctgga aaagcttcta aatcatctgc 300

gtctacgaag aagaagcaac catcaaagga gaccccgctt aaatcctcct ccacatcgaa 360

gccttctgtg acacagtcaa gataataatt atgaagattt tccaaatagt caaattcnca 420

aagat 425

<210> 2436

<211> 406

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-042-Q1-E1-H3

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cagggtagacag tttttatcaa tttctcctct ggcaagctca cttgttcatt gggttgttgg 180

aatcatgtac atgttgcaaa taagcatctt cgtcagcctt cttcgagggg ttcttcgtcc 240

tggagtctctg tatttccttc gtgatccanc agatcctaata tacaatccat tccgagattt 300

gattgatgat ccagtgcaca agcatgctcg gaggggtactg ttatcagttg cagtgtatgg 360

aagtttgatt gtgaagctgg tattttttacc aagtcaaacn tgcgaa 406

<210> 2437

<211> 478

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-042-Q1-E1-H4

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gactccctca tgtgggcctc cctcaatcca ggtggcacia ctgtgttctt ggaagaggat 180

cctgagtgga tagaggccgt cctcaaggac gcccacatccc tcaggggcca ccatgttcag 240

taccggaccc acctttctga ggccggccgc cttctctcga cttacaagaa cgaacccatg 300

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tctctccctg atgagttcta tgataccgag tgggatctga tcatggtgga cgcacaaaaa 420

gggtacttcc caaaagcgcc anggaaagat tggnggnana attttcctcg gccatcag 478

<210> 2438

<211> 416

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-042-Q1-E1-H7

<400> 2438



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 ctaactcaaa agatcgcat gttggcgac atttcttcag tccggcccat ctgatgcccc 180  
 ttctcgagat tgttcggttca aagaatactt ctgctcaggt gattctggat ctcatggcgg 240  
 ttggaaaggc cataaagaaa gttcccggtg tggttggaat ctgcataggc tttgcagtga 300  
 ataggacatt ctttctttat tcacaagctg cacatatgtt ggccaatcta ggtgttgact 360  
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<210> 2439  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-042-Q1-E1-H8  
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 tctcgcatca ccgtagtcgg agttgtctac tgtgacacgt gttctatcaa cactttctca 180  
 agacaaagct atttcttaca aggtgtggaa gttcatgtga catgtagatt caaagcaagt 240  
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 gtgtacaagc tcgagatccc tcacgtagat ggcacgatt gtgtcgacgg aatcgctata 360  
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<210> 2440  
 <211> 443  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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catcgattct cctcatcttc tcttccattc aaatctcaca ttccctcttc acaacaacag 180  
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<210> 2441  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 caacatgtct ccaagtatgg taagatatat agatcgaact tgtttgggag aaccaacgat 300  
 cgtatcagct gatgctggac ttaatagatt catattacaa aacgaaggaa ggctctttga 360  
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<210> 2442  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-042-Q1-E1-B9

<400> 2442  
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 atttcgagag gtttggttgg ttggtctccg ccgcatatac aaccgttaac tctgttttct 240

gaagtttccg agcctcctga gtctccatct ccttaccttg atcctggtgc tgagcacggt 300  
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<210> 2443  
 <211> 448  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-042-Q1-E1-C2  
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 caagggttac acgcgatttt cgggattcat tacagagaga tgggtgttct gacgtatcag 240  
 cagatgtgaa atttgcttca agtagatttc ctaattatag aattggagct aatgatcaaa 300  
 tatttgatgt taaagacgat cctaaagtga tgtccatgaa agaggttggt gcgcgtgaga 360  
 cagcgcagct tatggaccag cagaaacgtt tgtccgttcc gtgaactcgc ccaanaaatt 420  
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<210> 2444  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-042-Q1-E1-D1  
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 tcgctttcag agacattagc ctgaccaaga tcgagtcctc gcctcaccat aaccgcccgc 180  
 ttagggttgt tggtgacggg agctttggga cgtcgaagaa cttcgagtac atgttttacg 240

tggattttga ggcacgatg gctgagccgc gtgcacagaa cgcgcttgcg gaggttcaag 300  
 agtacacgtc gttcctaagg gtgctgggaa gttaccccat ggatatgaca ccatgggtcca 360  
 tgacatccac agaagaagca tgaccccatc gccaaaaaca aactcaccaa taaatttatt 420  
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<210> 2445  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 2445

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 cgggaaatcg gaaaatcgga gatgatgggg atttctttcg ccgccaaact ccgtttccga 180  
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 tgtatctcct ccgtccattt cttcttctta taaccttttt ctttgtcaga tatcgccat 300  
 ggaagaggct gattttgccg agaaagatcc ttctggccgt tacatcaggt atgatgatgt 360  
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<210> 2446  
 <211> 435  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 2446

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 tcaaatcatc gatgatcaac caccgtcaac caaacttctc ctccgccgtc tccagaccca 180  
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gaaaatgggc accagagagt tggaggacga agaaagcttt acagcaaccg gactatccag 360  
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<211> 413  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-042-Q1-E1-D7  
<400> 2447

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ctcctgtaga agttatggag ttgaagactg aggatttagc tgagcttaat gttggtttgt 180  
tgggtggaga gagatcgaga gttaacactt ggtataatgt tcttgtgagt atgcagaaga 240  
agactcgacg attagtagcg gagaggggaag gtaaagttcc ttcctttgag ccatttcctt 300  
cacttggtgtt aacggctcat ggcattgaag ctaaaggaag ctttgetcaa gctcangcga 360  
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<210> 2448  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-042-Q1-E1-D8  
<400> 2448

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gaggaggatc taagagcaag agaatgaatc ggtctcagag gaaattactt gctgatgaag 180  
agatgttgca tcgtcgagct ctttccatgg cgattcatca agctcagctt tctcagagat 240  
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accggttttc taatggcaag caggttaagt cactactgat tctcaatctt ctccacactt 360  
ataaaaagttt caatcttgaa aagttcaaaa ggtttcattt ttaaattgant taaagggt 418

<210> 2449  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-042-Q1-E1-E11  
  
<400> 2449

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atgtcttggt cctggatgcg gcaactggta aaaacatcga agaggtttct acttgtaaca 180  
tcttcattct aaagggaaac attgtatcca ctcccccaac ttcaggaacc attttaccag 240  
gaatcacaag gaagagcata tgtgagctag cccgtgacat tggctatgag gttcaagaac 300  
gtgatctttc tgtggatgag ctattagagg cagaggaagt tttttgcacg gggacggcag 360  
tggtcattaa agcctgttga aaccgtgaca ttccatgaca aagaggggta aaaatn 416

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<211> 376  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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actcggaggt ttcattgagag aatccgagtt cctccaaact cttcatttta actcgctacg 180  
tcttgacgac ggctccgtcg ttaacatgtc cgtgcctatt gttctcgcta ttgacgatga 240  
acaaaaagca cgtatcggcg agtctacacg tgtegtcttt ttcaattccg atggtaaccc 300  
cgtcgctatc ctacgcgata ttgagattta taagcatcca aaggaagaaa ggatagctag 360  
aacatgggggt acgacn 376

<210> 2451  
 <211> 470  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
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 <400> 2451

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cagccaccaa ctggtgttcc aggaggtgat cttgctaaag tccagagagc tgtgtgtatg  180
atctcaaact ccaccagtgt tgctgagggtg ttctcccgta ttgatcacia gtttgatctt  240
atgtacgcaa aacgtgcttt cgttcactgg tatgtgggtg agggatatga agaaggagaa  300
ttttcagagg ctctgtagga tcttgacgca ttgganaagg attacgaaga ggttggtgct  360
gaagggtgtg acgatgagga tgatgaagga gaggagtact aagaagggtg tcggttttat  420
gtgggatttc tattatctcg tgtttgtgtg aataaggctc naaactccta   470
  
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<210> 2452  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 2452

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ctcctaacca cggcggattt ttctcacgga gctaatttcg ccacgccga cgctaccgtt  360
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caaggaatna gttgggc   437
  
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<210> 2453  
 <211> 443  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 cccnttaacc cgggagtacc ttt 443

<210> 2454  
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 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 gactagtggg ggagatgacg aggaagcgcc gtcgtcggcg cagatggctt tacttaaggt 420  
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ntaaaaggtg aaagt

495

<210> 2455  
<211> 495  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 2455

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ctctcttcag atcacaaagt tttcgttttt agggttctct catcgatctc ggtttgtgat 180  
cttcttcttc atcaatggcg tctagtata aacaaacaag cccaaagcct cctccttcac 240  
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aagggtgattg gtggctgata actatttcac tgggttcaaa aggacaacct taaagaagtg 420  
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<210> 2456  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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ggtcttacac ganggagggt cgtcgantg ctcgtgctgt gcgtctcact atagggctta 240  
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cngaantca ctctcgctc tcttcttttg ttctaaggg tgatgaacat gacatggaag 360

ttgatactgc ctcatnggnc acataagctg ctccntctaa gcatctacct gcagagctcg 420

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<223> unsure at all n locations

<223> Clone ID: LIB22-040-Q1-E1-H11

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tgggtccgagt agttctaagt ttatcaaacy tagctccatg gatcacaact gttggtgctg 180

gtactttaga tcgtgatttt ccggcgcttg cgattctcgg taacggcaaa gaatttcacc 240

gggagtttcc tttgtttaaa ggagaaagct ttaccgggat taaattgttg cccgttttaa 300

tttacgctgg ggaaatgcta ntnaatggct actaaattgg gtaatcctct gttatgaccc 360

ggaacttttg gattcccggg agaaaagnta aanggggaaa naattgtgat ngttgttgat 420

aagaaggaaa ttnaatgcta ggagttcaga aaagggtgat gttgggttna aagc 474

<210> 2458

<211> 416

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-040-Q1-E1-H12

<400> 2458

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caccacctca tagaccctaaa acacaaaaac ccttctctca aatccgaccg aatcgggtct 180

tcttaaaaca ctccatggaa gtogaagtca agctccgtct cctaaccgcc gctgctcatc 240

tccgtctcac cactctctct actccatacc acctcaanac ccttcancaa cgcaacacct 300

tcttcgaana caccctaaaa cgacctctct ctngcccgcg ccgtcctcng tctccgcttc 360

nttcaaaacg ccgccgtttc cgcggcttct cnttctccgc gcgttgatc gtcnct 416

<210> 2459  
<211> 442  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-040-Q1-E1-H4

<400> 2459

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnntttcagc 180  
gaccgtgggtg gtcgcggcaa gangaagagg accaccacgt ggtgggtgctc gcggcggcag 240  
aggaccagct ggccgtggag gcatgaaagg aggaagcaaa gtgattgtgg aacctcacag 300  
acacgcanga gtgttcattg caaagggtaa agaanatgcc cttgttacca agaatttgggt 360  
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agactgaata caaaattttg ga 442

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<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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ctaaaatcgt caaataancc cgatgtcatc atcancgtcg tagacagtta cgaacgactc 300  
ctcaagcgac gacgaagacg aagagccata accgtaacgt ccttactaca anagagctgg 360  
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<210> 2461  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-041-Q1-E1-A1  
  
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gaaatcggga tacagatatt tccgccgtct ctaagcctcc gttgactatg tcttccgtcg 360  
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attccc 426

<210> 2462  
<211> 232  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-041-Q1-E1-A11  
  
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ctgaactttt cttatgcagc tgaacaatc gtaaagtatg taatattttc cttaaactct 180  
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<210> 2463  
<211> 425

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <212> DNA  
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 cagtcgccgg aagatttcga tcaaccatct ccgcttcgta aaatcatctc cgtcgcttcc 180  
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<210> 2465  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-041-Q1-E1-A5

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gagaagaaga gagaagcagt tcttcaaagc agcaacaacc acaagctcct atgtctttga 180  
agatcataga ttcattgtctc agactaagtg tggttcctct cagtgttgca accatctggt 240  
taactgtcac taaccacgaa tccaaccgga actacggcaa tttagagtac aactccatca 300  
tggtgtctca gtatatggtt ggtgtgagtg ccatatctgc tatttatgct ctgctctcta 360  
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<210> 2466

<211> 417

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-041-Q1-E1-A7

<400> 2466

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<210> 2467

<211> 424

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-041-Q1-E1-B1

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<210> 2468

<211> 485

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-041-Q1-E1-B10

<400> 2468

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ttctcgacca aatattacga tgggtgacggc ggatgccaga ggcagagcag cttcttcgga 180  
ggcacgacgg tgctcgatca aggcgttggc tacgccgtga ttcttggttt tgggtgcttc 240  
tttgccgtct tcacatcttt ttggtatgg ttagaaaaac gatatgtggg agtcgtcat 300  
acatcggaat ggttcaatac agcgggaaga aacgttaaga caggacttat tgcaagtgtc 360  
attgtatcac agtggacatg ggctgcgacc atactgcaaa gttcaaacgt agcatgggca 420  
gtatgggggt agtggaccgt ttggtacgc tagtggagcc accatacaag tgccgttggt 480  
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<210> 2469

<211> 438

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
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 tctaccagtg tttctcgctc cacaagaaaa ctccaaagca tatggtcatg aactggccgg 180  
 tccttgggat gttccgggt gtgctcttcc aaatccctcg tatctacgac tttgttacgg 240  
 aggctcttga ggcagaaaat atgacgggtt gtttcatagg gccatggctt agtggaacag 300  
 acatattgct cactgttgac ccggtgaata tccagtatat tctaagttca aacttcgtga 360  
 attaccccaa agggaagaag tttaacaaga tctttgaatt cttgggagat gggattttca 420  
 acgttgactc cggttgt 438

<210> 2470  
 <211> 499  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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 <400> 2470  
  
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 accgtcaaca gatgaggcat actcctcctt gagatcagcc tcagactctt cttcctcctc 180  
 gtcggaaatc acataatcct catctgactc atctgaacce ttatccttag atctaacctt 240  
 tctattagaa tttctagccc aagacgtgtt tctctttccc atatgtcctt caaaataaga 300  
 tatagaaaca aaccactaag gcactaatct aaatctaaac tcatcaacca aaaacacaat 360  
 gattccttca gctccgtctt gttctaaaaa cttatatagc ctagaccaa tcaccaaga 420  
 aatctcaaac ctcaattctc cgaattcaga gcaagaagat ntgcaaaatc aacccaaana 480  
 acaaacaaga aatcaagga 499

<210> 2471  
 <211> 448  
 <212> DNA





<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-040-Q1-E1-E9

<400> 2473

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ttaccctaatt ttcacaanct tctannectc anattcgncg atagctccaa aggagctttc 120  
ctcttgtctc gtaattccat cttcaaagcc ggtttattca gtcccgnngg ngatgattcc 180  
tctaccggtt tctacttcnc cgtegtccat gtcgattccg gntcaacaat ctgggtcatca 240  
aatcgagatt cccctgtttc angtcnggt acaatgaatc ttactcctca aggaatctct 300  
gttattgaag atggtaaaaag tcaaatacca gtttgggtcaa cgccgggtttt aagcttctcc 360  
ggttaantcc gttcggttaa ccgacgcggt tagtctcctt cttcttgatc acttgaacg 419

<210> 2474

<211> 487

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-040-Q1-E1-F1

<400> 2474

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tctgcaattt tcattctttt cctcttttct tctgagaatt tcagctcaag aaccatggat 180  
gagtcttctc ttgttcgttt tgtgttcctt ctctgtttgg ttctgtctgc tgtgttctgt 240  
ttggctgagt ctgacaaaa cgcaaccgtt tcttctgctg ttacattgt tactctcaag 300  
gaccgtccat ctgttcattt ctccggcaag agaatcgagt gactctaaac acaagcctta 360  
ccgtacttc gtcccaaatt tacaagaaca ttgaaccgaa gtgcttctat tattaagagt 420  
tcangattca ttgctgagaa atgtattgag aaaggagaat tancttaaag cnttaaaggt 480  
aacaact 487

<210> 2475

<211> 445

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-040-Q1-E1-F3

<400> 2475

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agatttcgct tccaaaatca ttggntactt gcttttacag gacttgggta agacagattt   180
gatgcgtttg gctcttggac cagagactct cttgcagtcc gtttgtctca aagctaaatc   240
tgcttttaggt ctttcttcta atggatcttc ttctgtcttc tcgccattga accctatctc   300
caagacccat taacatccac cgtcattctc tctctcactc ttcaccggga aatggggttt   360
cgangaaccc tttgtctccn tcttttgcta ctctgggtc actcgggtag taacctaac   420
atgaattcca atccgtttca aagca                                           445

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<210> 2476

<211> 499

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-040-Q1-E1-F4

<400> 2476

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attcaaaatc tggtagacag gaagtagcgc atcgctcnag cgatccaage gaaaagcgtg   180
gtggctggat cactttaccg ttcatgctag ttacattatt aggcatgtcc ataacttctt   240
tcggatgggg aatgaacttg atcgtcttct tgatcgagga attccacatc aagaacatcg   300
ctgctgctca gatttcaa atgtgtcaat gagttgtcaa catgttacct gttgttgag   360
ccatcctagc tgattccttt tttgggaaca ttctgtcat ctccacctcc actttcattt   420
ctctggctgg aacctctctc ttgaccttaa tcacatcctt tgaactactt gatgcctaaa   480
accgtgtnaa accggggca                                           499

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<210> 2477

<211> 488  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 2477  
  
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 cagaacgaat canagcaaga ggaccagat catcctctgt taactctgtt cctctgattc 180  
 ttgacattga agacttcaag ggtgattttt catttgatgc attatttggg aacctggtaa 240  
 acgacctctt gccgtctttc ctangacgaa gaagcagatt ctggggatgg ccatggcaac 300  
 attgctggag ttgatggttt gacaaatggg catttacgtg gacagtctgc tcctttgtcc 360  
 tctgctcctt ttttccctga agtagatggg cttttgtctc tgttcaaaga tgcttgcaan 420  
 gagttagttg atcttcggaa gcaagttgat ggaaagctca atacactaaa agaanggaag 480  
 tttcaaac 488

<210> 2478  
 <211> 478  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-040-Q1-E1-G10  
  
 <400> 2478  
  
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 ttatatatat atacttggtc aactcttctt cgaacgctgt ccaacttctt cctctggttc 180  
 gatcatcgag atctcgaggt tatttggccg caatgcagaa gcgaatagcc ttgtcgtttc 240  
 cagaagaggt actanagcat gtgttctcgt ttattcagct ggataaggat aggaactcag 300  
 tctctctggt gtgcaagtca tggtagaga tcganccgtg gtgcaggagg aaagtcttca 360  
 tcgggaactg ctacgccgtg agtccagcga cggtgattag gaggttcccg aaagtgagat 420  
 ccgtggagct taaaggaaaa cctcactttg ctgactttaa nttggtacct gacgggat 478

<210> 2479  
 <211> 497  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-040-Q1-E1-G2  
  
 <400> 2479  
  
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 tgtttcattt gaagaaaact ctaactttct cgttgangct ttgagctctc tacctcttta 120  
 tctccggaga tgtataataa catgggacct caaccgggga tgccaagacc tccangaaac 180  
 cctgagcctg gtccatttgg taatcctttc actggagctg gtcggggttt tatccgtggt 240  
 ggtttgggan cgtangggga gagaatttta ggatcnagct ctgantatgt tcanagcant 300  
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 aataaactga aggttgttct gtttcctttc cnacaccggg gacactggac caanaatatc 420  
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 cttgtacatt cccntta 497

<210> 2480  
 <211> 499  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 2480  
  
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 cnttaatatg ggagaagcct acatggaccg acttcaagca gcttgccaaa gaaagcgaat 180  
 ttgcggcctg gacgcttctc cacggctaca caatgaatca tcttgctttt gcggttcctc 240  
 gattcaaaca tcgtttcagt gacatcaaata tcgtcaaaca gcgtcttgag gaaaagggat 300  
 tcaaactcaa cagtgcgga gaaatcctca aagtgcgtca agatggtcta ctatttcaag 360  
 tttcatcgat ctcggaagg cttccggtaa catttgcaag atggagtaac tgaaacaatc 420

ccagcttcat acattgaatt cactcaagcg tcaagttcct ccaaagggtca aaagatgtgc 480  
cgctgaaga agattnaag 499

<210> 2481  
<211> 492  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-040-Q1-E1-G5  
  
<400> 2481

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atggagttcg agaacnggta cggacttgca acgtcgcaga agtacgactg tctcttggtc 180  
gatttggaag anactcttta tcntcttagn tccggaatcg caagagaatg tgggaacaac 240  
atcanagatt acatgaccga naaactcggg atacctaang acaaaatcgt cgaattgtct 300  
gatcttctat acaagaacta tggaacaaca atggctgggc ttagggcgat cggatatgaa 360  
tttgactacg atgagtacca cagcttcgtc nacggtcgtt taacctatga caacataaaa 420  
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caaancggac aa 492

<210> 2482  
<211> 454  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 2482

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gttataaact tgtttctcaa taaaacttga gtttttaaaa atccagtctt gcaaattcat 180  
cgacgatgtt agatccttct tctgctaaat ccttcaatac ccatttgtgt tttccgagta 240  
ttcccaatga tgatcactca gattccgggtg tctgttcgcc tactttgtgg agaaccagtc 300

ccccgaagag tctctctcct tttcacccggc cggaagatta ctgggagctt ttcgccggat 360  
tctaaagcac aggctattgc tcgtgggtcaa cggggagctt aaggnaatgg ttagtaaaga 420  
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<210> 2483  
<211> 449  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 2483

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cattttcagg ctcaagcagc ngaagaataa cgatcannaa ccannnnaga ngaaaacgaa 180  
tctgttctta gctttgatgg gttcttgctt cagttctcga gtcaaagcag acatcntcca 240  
caatggtaag agcagcgatc tttatgggtc aagtctctca agtcggaaat cgtcttcgac 300  
tgtagcggcg gctcagaaga cggaagggga gatattgagt tcgacccttg tcaaaagctt 360  
cacctttaac gaaactcaaa ctgccacaa gaaacttcaa gancaagata gtgtgatcgg 420  
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<210> 2484  
<211> 503  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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taaaacgttg acggtgttac gccttgatag gaacaaactc attggagata ttccttcata 180  
tcttaacaat ctacaaatc ttaacgaact gtacttggcc aacaacagat ttactggtac 240  
tcttccaaat ttaaccagct tgaccagtct ctacacattg gatgtgagca ataactttt 300

ggattttctca cccattccat catggatctc ttcattaccc tccctatcaa cattaaggat 360  
 ggaagggatc caacttaatg gtccaatacc aatctcattt ttcagccctc ctcagttgca 420  
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<210> 2485  
 <211> 445  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-040-Q1-E1-C10  
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 gttaggggtg aagaagagaa cggacgcggt ggtctccgta ggcatcggag ggtttctacg 180  
 aagctggcga attacgtaga tcttccgact gacgacgaag aagatggagg acccaagcga 240  
 aagggcaaaa ggggtggaaa tagggctccg aaaaagacac cgaagaaaga cgaggagatg 300  
 caaaagaacg aaattgatga agcaaaccga gtcactggtc tgggtgaagga aaaaagagcc 360  
 gcgactaaga ttctgaatcc caanagactc cattaattga anttaggaga agcntccngg 420  
 aaaccatgcc caaggggaant aaagg 445

<210> 2486  
 <211> 456  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 agatgggtgtg gtggctctatg cgaacggtga ttcgtgtaat ccaaaccaan aaaatgtttc 180  
 tgagcctctc ttagattcag tatcangcga tgatgctaata gtacatacag agcttcgata 240



tggggaagag aacatcgaag taaacgaata tgatgttaaa gagtgtacta ntgagatccc 300  
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 aaaccgtttt ccttttagcaa ctgagaaact tcctcc 456

<210> 2487  
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<223> unsure at all n locations  
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 ggtttgattc acgatttgct atttcatctt cgtggagaga gtttgatctg atttggtgat 180  
 cgtcagcgtt atgtctagtc cgagaagtaa caagccgaag attgtcaacg gtcctgggtg 240  
 ttatattcta caagacgttc ctcatctcat tgattacctt cctgatcttc ctacttatcc 300  
 aaatccattg caagacaatc caagcttact caagtgggta agcaatactt tgttcatgct 360  
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<210> 2488  
 <211> 484  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 2488

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 gctgatctcg aattgttctc cgttcatttg ttacgggtgga gatgacatcg gatcaccgcg 180  
 acgctctttt ctctctggaa ctggaatcgc ctgatccgga cgaaggaggt gtagcagacg 240

gaggagaatc tgataccgac gaggatttgc gcgacaacga tgatgttggt atgccgggaa 300  
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 catcatcact ccccatgggt tctacgatct cagcgactgc tgttgtttcc gggaccccga 420  
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 tctc 484

<210> 2489  
 <211> 490  
 <212> DNA  
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 actcatgcc a ngctctcttg tccgaattca cgacgttgtc gctctcaaag ctcaaccgnc 180  
 ttgacctatt gcaggtgttt ttgaagaact cgggtgtggcg gcttgagagc acgatgacca 240  
 tggtgagcga ggctaggatc cgctcgaacg gtgttagaga caaggcaggt tttgctgact 300  
 gcgaggagat gatggncgta tcaanggatc ggatgatgag ttcgatggag ggaacttcgc 360  
 ggaggaaact ataatcttga gtcatactca aacgttcata cttggctgag cagtgtgctt 420  
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 atagtcaaag 490

<210> 2490  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 2490

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attagaannn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnggca tggctggtct cgatctaggc acaacttctc gctacgtcca 240  
 caacgtcgat ggtggcggcg gcggacagtt caccaccgac aaccaccacg aagatgacgg 300  
 tggcgctgga ggaannnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn naggtttaga 360  
 tttaatagct tctaatagata actctgggac taagcggcgg tgggangagg anggagcgg 420  
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<210> 2491  
 <211> 456  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 ttatggntat ggaagtccgc ttgcttacga tcaatctcaa gacattgaat ctgccgcaaa 180  
 cactgctctt ctccgagaac aagaaatata aacgcagaag attatacaag gtcaaagaga 240  
 actgggactt cagtatccgg agactctaag cataacactg atattcttcg agatcgtgct 300  
 gacccaatg ctctaaagga acatttgcta aagttcactg cacatcatag agcanaagca 360  
 gcggcaaagc gtgggtggga gtgtgantac atgcagataa ggtaatgtgg atgttgaaa 420  
 cngttatggt ataacgggtg gaattgcata nccggg 456

<210> 2492  
 <211> 431  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-040-Q1-E1-D5

<400> 2492  
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gacncttttta gnancitcan atgttcnaat ctcgaaaaan atgcaacttt actctgcaat 180  
 ttcccgagga catanacanac ctaacgccgt cgtcngtgct gcctccatgt ttattcaaca 240  
 taagtccatc gnagcttcat cggancccta aattgttggt ganancitcn tctgtagtaa 300  
 ggtctcttca ttgccggagg tcaggtggat tggttacgca ttctcaagag gtcaagggtc 360  
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<210> 2493  
 <211> 450  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-040-Q1-E1-D6

<400> 2493

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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnncac 180  
 cggtgccgcc gcaaccanca tgccagcgga atccaatcct tacgtttctc cttcccctgc 240  
 cccaaggaat acgatggatt cggatgaagga tacgttaggg aaatggggga aaatggctgc 300  
 cgacgccacc aagaangcng aggatctcgc cggaattttt tggcagcact tgaaaacagg 360  
 cccaangtgt agcaaagtgt gctgtttcac gaattgctca ngggacaaaa atacttgcan 420  
 aaggtggata cgaaaaaggc tttaagnaaa 450

<210> 2494  
 <211> 435  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 2494

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 aagatagacc cgagcgatga gacanggaca gtgttgagga atgttanggg agatattgag 120

ctgcgtcant taagcnatac ttatccagca agaccanaca ttcanatctt tcgtgatctt 180  
 tgcttaccca ttcacgcagg aaagactggt gctctggttag gagaaagcgg gtcggggaaa 240  
 tcaacggtga tcnegctggt acanagattt taogatccag attccggtca tataacttta 300  
 gatggagttg agctcaagaa gctgcagttg aaatgggtga gacaacaaat gggactagtg 360  
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 agcgaanaag gcccc 435

<210> 2495  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-040-Q1-E1-D9  
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 agtccgatga tgtctaccta aagcttctcg tcaagcttta ccggtttttg gtgatgagat 120  
 ctaacagcaa cttcaatgct gtgattctga anangctttt catgaagcaa agtcaacaaa 180  
 gctcctcttt cactctctag gcttgtacag ttcatgactg gcaaggatga caagattgct 240  
 gtgttggttg gaactatcac tgatgatttg agagttcatg agattcctgc catgaangtt 300  
 actgccntga ngtttactga nagggtctacg ggctacaatt gacaaagctg ngtgngagag 360  
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 taaaagga 428

<210> 2496  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-040-Q1-E1-E1  
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gagccagatt cgggtgacgtg tgattgttgc ggattaaccg aggagtgtac ccaatcgtac 180  
 atagagatgg tcagagagcg ttacatgggg aaatggatct gtggactttg ttctgaagct 240  
 gtgaagtatg aagtcatgag aacgaaaaga ttgttaacga cagaggaagc tatggccaag 300  
 acacatgaac atgtgtaata agttcaaate ctcaaagccc ancaccgaat ccgacaggac 360  
 atttgatcct gccatgagac aagatcttga gaaaaagctt agattcacca agaattgctan 420  
 atttaagcct aataatccat cttaaaggacg aacaaaga 458

<210> 2497  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-040-Q1-E1-E11

<400> 2497

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 cgaaatcgat ctcccccttg cgttttccat ctccgtcgtc tgctgaaacc atttgatcga 180  
 tctctcagat aaggttctca ggatttaggt tgcttctatg agaaggacac gttgcagttg 240  
 gtgcttcatg tctaggtaat gaaggcttta tgtgatagat ttgttctca acaatgttct 300  
 tcatcaagca agagtgtac gcatgataaa tccccttttag tttcagattc tggacctagt 360  
 gataataagt ccaagtttac cttatgggtca aacgtgttta cgtcttcttc ctcagtttct 420  
 caaccgtata nggagtct 438

<210> 2498  
 <211> 439  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-040-Q1-E1-B8

<400> 2498

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tgtacgcgtt tcgtcagcgt ttgggctgat caaggcacia caaccgtcgg tagcgtcgcn 180  
 tgccctcact ggcagggcgg ttttatacnaa cagatnaacg attcttcctc cgccgctacn 240  
 gaattnacga ttccggnttc nactgaagta acatcgatca ataacaaccg tagatccgtg 300  
 attagacgcc ggagatccgg tcgtcgtccg tcctttannc cggtcacgt acttcaagga 360  
 tgccgnggcn agaganaana nggacaanaa gganatgcng gctagagatt gaancgcctt 420  
 tgggttttag tacgaagcc 439

<210> 2499  
 <211> 473  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-038-Q1-E1-F3  
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 ctattcaact ctgtcntgcc ttgtanagat gagattagtt ttgaggtgta natgaatgat 180  
 gaagccatgg atcacattgt gtttgctatg gcgaggaaga angcggctaa aacgatgcac 240  
 aaggagctga gggatctgca cagatttgng agggatgggtt cccaagtcct ggcgggagga 300  
 agtgggtaac ggaggantta nctgtggtct ctgagtctaa ggaggtagct ggagatatga 360  
 tcaccgatgt tgtactttga tcaangtttt tggtgacaag tcttttgaaa agtttgggaa 420  
 gtatttcac ctaaatgcn tttctccggg atcanacatc ctgggcaaaa cac 473

<210> 2500  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-038-Q1-E1-G10  
 <400> 2500

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 ccactcgact tctaagtta gttcatcaat ctcaattctg gattcaaac atctagcttc 120  
 tcgttcgttc cagaaccggg aaacttcttg tgggatggat tcaaaaactg gatcctcctt 180

tgaaataggt agtgatagat tgcattctcc aaatggattt tctgagaaag ctatgtccaa 240  
 tatggagcat tcattatttg ctaatgaagg cagaagcaac attcaagaat acagaggatg 300  
 atatcatttc aaacatttta gactttgatc cctgggatga atcgttgact tcgcaacaca 360  
 attttgcaaa attacttggg cagagtgatc atagggccag tactctggga atc 413

<210> 2501  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-038-Q1-E1-G12  
 <400> 2501

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 ggaacacttg ttggattctt nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnngatttc gtacctatgc ttagtttgat tattggggtt gatcctaaat cagctacagc 240  
 tatttcaaaa tgtatgatta tgggtgcttc tgtgtccact gtgtattaca atcttaggat 300  
 tgaggcatcc ancaacttgac atgcctanca ttgattatga tctcgcttta cngatccagc 360  
 ctatgcttan gcttgggatt aagtattggg tgtng 395

<210> 2502  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-038-Q1-E1-G9  
 <400> 2502

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 agactgtgga ggagagatca ggctccggaa gatggcggcg gccgagagat ttaaagggtg 120  
 ggggcgatat cgaagggtt ccacaggttt tgggtcgttt ggtttcgaat ggttcaagta 180  
 agattgcatg tctttacaca cagcaaggca agaaaggac taaccaagac gccatgctcg 240  
 tctttgagaa cttttgttcg agagacgata cagtgttttg tgggtgattc gatggacatg 300



gaccatttgg tcatatggtt gccaaagaaag tccgagatac attgcccttc acactcttaa 360  
cccagttgaa aatgacctca gagtcagatn aaagcagctt antttggtgc caat 414

<210> 2503  
<211> 412  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: LIB22-038-Q1-E1-H11  
  
<400> 2503

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aaaaaatctc aagttagcag agaattagac accgatggaa aaaagtttat cttcgccaaa 120  
acatcgattc gggcttcact aaagccggtg aagacgaaac tcattaagcc tgagagagaa 180  
tcagaagatg gaatttgat cactcccacg gcgagaggag caaagactcc ggagtgtccg 240  
gcggtccaa ggaaacgccc accggtgttg aaatgtcaga acaatattcg tatagagtac 300  
tttgtgcctc cttcagattt cgagttggtg tttatacaac gccgttaatg taaaaagata 360  
taaaaagagt ttctgagttt ggtttttaca aaaaaaaaaa aaaagggcgg gc 412

<210> 2504  
<211> 400  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-038-Q1-E1-H7  
  
<400> 2504

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acatttggtg ctcatcggga caatgttaat ccagagaaac cgagttggga agctgattct 120  
cgcttgcaat tacattcgaa taacgttgat gggttcaaga ttggttctca gcctgctact 180  
gcgaagtatc ctgtttgcgc tgacgggtta agaaaagttt tgaaatacat caaagagaa 240  
tacaatgacc cagaaatcat agtcactgga aacgggtaca aggagacact tgaagagaaa 300  
gatgtacttc cagatgccct cagcgatagt aacaggaagt attatcatat gagacatctc 360  
atggcattac atggancagt ctgagaggac aaggttnatg 400

<210> 2505  
 <211> 500  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-039-Q1-E1-A3  
  
 <400> 2505

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aactgttacg cctggtcgta cggtccana aattccaagg tcnaccacg cgtccgcna 60
cgcgtccgaa tctgaatata ctcatcgaa acctnnnnnn nnnnnnnnnn nnnnnnnnnn 120
nnnncttcca tagattccgt tgggctttta ctgtgtttga ttgatcggat cgattgcgat 180
tacggagaan atatggtca ggctgtagaa gaatggtata aacagatgcc gattatcact 240
cgctcttata tcacggcggc tggtatcacc accgtcggat gttccctcga tatcatatct 300
ccatataacc tttatttgaa tccgacactt gtggtgaagc aataccaata ttggcgtctc 360
gttactaatt tcttgatatt cgggaagatg gatttgact tcatgttcca tatgttcttt 420
ctcgcacgat actgcaaact ccttgaagaa aatcattca ggggaaagac tgctgaattc 480
ctaaacatgn cccaattgg
                                                                    500
  
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<210> 2506  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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tcatggaggc aaagacaaga catcctcttc accagatcgc agatacacca acacacaagc 120
ttctcctgaa acaatggta aaagaagaag agctaattct aagccgtgtc nctcaciaag 180
aatctcagat cgattctgtt cgaatgagaa atcactcagc tctacatcnt cntcnttctc 240
ttccactcca tttcnctgct acttctcttc cagcttctt catcctcatc ttctctgct 300
tcttccagtg cttgtaaaag atcatggatc ctttactct gccgctctgc tatctnnctt 360
ggggatcagt tggggcggta cgggacaaat ccgatgtgga acgcaanctt
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<210> 2507  
 <211> 452  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-039-Q1-E1-B1  
  
 <400> 2507

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ggaaatggag ttgcggatcc gaagtttgat ggaaatgctt ttgtcccgtt tgcacatggg  120
atgggactaa tctctgatga actctttgag aacgttacaa aagcttgcaa gggaaatttc  180
tatgaaatag agggactcga gtgcgaggaa cagtatacga aagttaacga tgatactaac  240
caagttgaat atatacaaca ttcttgagcc atgttaccac ggaacatcgc tatctgcatt  300
cgacattaga tcgcttcctt caagtctcct tcagctaggc aaaactgaaa aacggttacc  360
tataagaaaa agaatgtttg gtcganctg gcaattcgtg cgctgttca nccaagcant  420
gtccctaacc tggccaact tcntgccgaa gt                                     452
  
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<210> 2508  
 <211> 451  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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cttctgaaat ttccgtcaag aaagttggta ctcataatgg aagctttcac tgcgacgaag  120
ctctcggctg tttcatgatt cgctcgtcg ataaattctc cggcgctgat atcgtccgtt  180
ctcgtgaccc taagatattg gcagaacttg atgcagtgct tgatgttga ggtgtttatg  240
atccggagca tgaccgttat gatcatcacc agaaaggttt tgaagaggtt tttggacatg  300
gcttcaacac taaagctcag tagtgctggt cctgttacaa gcattttgga aaggagatca  360
tagctaagga acttaatgtc gaacaagatn accctgatgt tctccgggtt gtttttaacc  420
ggctacaana acctcaaggg aggcaaattg a                                     451
  
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<210> 2509  
 <211> 453  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 agaagaagct tgcgcgagca gaagcaatat tagcagcaac taataaccgt cccacgaaca 180  
 aaaccggctt ctgtgggcta gtcggtaaac aagtagacag cattgagtat tacactgagc 240  
 taatcaacga gtctgtagcc aaactggaaa cagagcagaa agcggttctt gctgagaagc 300  
 agcaaaccgc agcagtgggt ttcttcacaa ccagggttgc tgctgcatca gcaagctcaa 360  
 tctctgcact gccagatggg tgataaatgg actgtgaccg aagctcctga ancaacggga 420  
 antcccaatg gaagatccca acnatcaagc cct 453

<210> 2510  
 <211> 470  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-039-Q1-E1-B9  
  
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 tatactctgc attgttgggt ttgagccaag ttcatccat ggagctacgg attcatcaga 180  
 tacttcggcg ttaaacatca tggtcagctc catgaattct ccaggacagc tctcacaatg 240  
 gacagcatca ggaggtgatc cttgtggcca aaactggaaa ggcataactt gctctggctc 300  
 tcgagttaca caaataaagt taccaagtct tggactttct ggatcacttg gattcatgct 360  
 tgataaattg acttctgtta ctgagtttga tatgagcaac aataaccttg gaggcgattt 420  
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<210> 2511  
 <211> 501  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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aggaaagctg gagtactagt tgggactgga atgggaggtt taactgtgtt ttcagaaggt 120
gttcagaatt tgattgagaa gggtcatagg aggattagtc ctttttttat accttatgct 180
ataacaaata tgggttctgc tttgttggcg attgatcttg gtcttatggg tcttaactat 240
tcnatttcaa ctgcttgtgc tacttcnaat tactgctttt acgctgctgc gaatcacatt 300
cgtcgtggtg aactgatata gatgattgct ggtgggactg angctgctat ttttcttatt 360
gggttgggag gttttgttgc ntgtagggca ttgtcccaga gaaatgatga cctcaaaact 420
gcttccangc cgttggataa agcangaaat gngtttgta atgggttaaa gaactggggg 480
ttctggtgaa tgggaancct g 501
  
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<210> 2512  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-039-Q1-E1-C10  
  
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tcctcggact tgagaagaaa caaaccaaca acgctcctaa gcctaagttc cagaaatttc 180
tcgatcgccg tcgtagtgtc cgagatattc aagggtcgat ttcgaaaatc gatccggaga 240
ttatcaaata gctgttagct tccactggaa acaattccga ttcacgggt aaatctcggt 300
cggttcggtc tactccgagg gaagatcagc ctcaagatcc cgatttctcc ggtccacgcg 360
tctctcgcca ggtctaagta ccgaactcgt ttcgggaact gttcctaaga cgat 414
  
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<210> 2513  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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<400> 2513  
  
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 aatctaaatc ctcagatttt catcaacgaa gcaatcaact ccgtcgaaga ttatgtcgac 180  
 caagcttttg acttctatgc ccgtgatgca tccaaatctc tcaaaatcaa aggatctgat 240  
 aaacaaaagt cacaagcttt atcaaatggg attgctcgtg ttcggtggtt gctactatct 300  
 gtaatcgaca atcgtttgaa attgtgggaa agctattctc ttogattctg tttcgcagtt 360  
 cctgatggat ttgtgttacc aaagagtgag gagtcttcgn ctgtgg 406

<210> 2514  
 <211> 456  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-038-Q1-E1-C2

<400> 2514  
  
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 cgacggaaca accgatagtt tccttgaaga tggatcggag ggtctctgtg ctctctccac 180  
 caccagaga atgtacggat tcgccgcgtc tttagccact ggntcgtac ttatgttcct 240  
 gtcnatgatt gtatttggga tccccatcaa atttgcactg ctcttcacat ttggaaatgt 300  
 tctagctatt ggaaagcaca ngctttctc acggggacct gagcaacaga tgactatgat 360  
 gtttgaccct gttcgtttct tagctanac catttatntc ggatgtgtcn ttgttgcnn 420  
 canntgcgct cncngattca gagcaaaatn cgtacg 456

<210> 2515  
 <211> 439

<212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-038-Q1-E1-C4

<400> 2515

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ttatggcgtc agcggtgacg gcgtcaggca aggtggagaa aggacatcag ctatatagag 180
acggcaagta taaggaggcg cttctcttct atacggaggc tcttactgct gctaaagcta 240
aaccacagaa gatcgctctt cacagcaacc gcgccgcttg ttacttgaaa ttgcacgatt 300
tcattaaggc agcagaagaa tgcacttggt ttcttgagct tgatcagaaa catagcggag 360
cgttgatgct gagggtcag actttagtca ctcttanaga ataccaatct gctctttttg 420
atgtcaccan gcttaagga 439
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<210> 2516  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-038-Q1-E1-C5

<400> 2516

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ctacatccga tcgtcgccgg tgacatttta taagtgtgga gtttacttca gctttattat 120
tcaggaattg atggatcagt acgangaaag ttgagaagat tgggtgaagga acttacggtg 180
tggtttataa cgcacgtgac anngtgacta atgagacaat tgctttgaag angatcaggc 240
nagagcagga ggatgaaggt gttccnagca canncatcag gaganatcct ccncttgaa 300
agaaaatgca cgcacagcan cattgtcaaa ttgcaggatg tggtngcaca ccgaggaaac 360
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<210> 2517  
 <211> 483  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-038-Q1-E1-C6

<400> 2517

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caatctctag aaaatggcga tcacttactt gcttcctctg tttctttctc ttatcatcac 120  
ctcctctgtt tcagctaatt tccaaagaga cggtgagatc acttgggggtg atggtcgtgg 180  
acagatcaag aacaatggag agcttctcac tttatctcta gataaatcct ctggttctgg 240  
attccaatcc aaaaacgagt acttgtttgg taaagtctcc atgcaaatga agcttgtccc 300  
tggaactcc gcaggaacag tcacaacact ttacttgaaa tcacctggaa caacatggga 360  
cgagatagat ttcgagtttt tagggaattc aantgggaga accttacaca cttcacacaa 420  
atgtctacac acaaggcaaa gggagacana gaacaacnnt tcanactccg ggttgattcc 480  
aac 483

<210> 2518  
<211> 491  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-038-Q1-E1-C8

<400> 2518

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tttcttcttc ctcttcttta aattggatgt tttgggcaag aaacagagag aaacacgtta 180  
atgtgagagt ttgtcattga atatttggtt tgcaatggaa agagattttc tgggtttgag 240  
cgacaagcag tatctaagta ataacgttaa gcatgaggtt aacgatgatg ctgtcgaaga 300  
acgaggggta agtacgaagg cagctagaga atgggggaag tcaaagggtt ttgctacttc 360  
aagtttcatg ctttcttcag atttccagga ggctaaggcg tttccgggtg cataccagtg 420  
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cgcgacgccg c 491

<210> 2519



<211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-038-Q1-E1-D10

<400> 2519

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 gggtagagctg tgtgtttccg ggtggnaaaa agattgggat tggtgggcga acgggaagcg 180  
 gaaagtgcac tttgattcaa gctttgtttc gattgattga tccaactgct ggaaaaatta 240  
 ctattgacaa catttgacat ttctcaaatt ggtcttcatg atcttcgtag tcgccttggc 300  
 gattatacct caagatccta cattatttgn aggaacaanc cgagcaaate ttgaccacg 360  
 tgaagnncat tcatatgatc aaaatcnggg agngcgcttg ataagatccc cacgctt 417

<210> 2520  
 <211> 453  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-038-Q1-E1-D2

<400> 2520

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 atatttcgac ccaaaactat actgatggag agaacaaaca gcattgagat ggatcgagag 180  
 agattaacgg cggagatggc gtttcgagat tcatcatcgg ccgttataag aattcgaaga 240  
 cgtttgccgg atttattaac gtccgttaag ctcaaatacg tgaagcttgg acttcacaac 300  
 tcttgcaacg tgaccacat tctcttcttc ttaattattc ttctttaaac cggaaccgtg 360  
 ctggttcagc taaccggtct aacgttcgat acgttctctg agctttggtc taaccaggcg 420  
 gttcaactcg acacgggnga cgagacttaa ctg 453

<210> 2521  
 <211> 455  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-038-Q1-E1-D6

<400> 2521

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atcaatttta ggtcttttga ttcctacttg tctaattcga atccaatttc tgggtcaact 180  
ttcgatcaaa atcaactggg cttgaatcaa ttttaggttt ttcgattcct acttgtctaa 240  
tcagttgaat caaagttcgt ctcttttaag cttgcanttt caaagatgac agttgttgga 300  
gatgttgctc canntcgaag gaggaacagt tctacgtgc tctaattgata tcgctgtctc 360  
cggnannacc aagaggtgtc atggacgann aagttgtctc tgangaattc aatggagctt 420  
ccttttagtg gcgcggtttt taagctcgc caagg 455

<210> 2522

<211> 446

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-038-Q1-E1-D7

<400> 2522

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ttggttttca atttcaggca tttgtgttgc aaaagaaagg ggatatcgcg gaaattctgg 180  
atccgaggct ggaaggaatg ttcgatgtga tggaggcaga gagaatgata aaggtttcac 240  
ttttatgcgc caacaagtct tcgacattac ggccaaacat gtcgcaagtt gtgaagatgc 300  
ttgaagggga gactgagata gaacagatca tatcagacct tggagtgtat agtgataact 360  
tgcattcaa gccatcgtct ttgtcgtctg attatatctt gtcnattcct tcatcatctg 420  
aatctgctta ngatctgtac caccca 446

<210> 2523

<211> 409

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-038-Q1-E1-E12

<400> 2523

aaggatacct caatttcatg ggaaacgaat ttggacaccc agaatggatc gacttcccaa 60  
ggaccgacca gcaccttctt gatggcagag tcatcgctgg gaataatggt agttatgata 120  
aatgccgacg taggtttgat ctgggagatg cagaatatct tagataccat ggactacaag 180  
agtttgatcg agcaatgcaa aatctagagg agacgtatgg tttcatgact tcagagcacc 240  
angtacatat cccgcaagga tgaaggagac agagtcattg tattcgagag aggtaacttg 300  
ctcttcgtct tcaacttcca ctggaccaac agttactctg acnaccgtat cggttgctct 360  
gttcccgga agtacaaaat cnntttggac tccgataact cttanttgg 409

<210> 2524

<211> 448

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-038-Q1-E1-E2

<400> 2524

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ggttagagga gcaagtggag gagagacttc gaaacaagta aagttgaagc ctttacattg 120  
ggataaagta aaccctgatt ccgatcattc aatggtttgg gacaaaatcg atcgtggatc 180  
attcagtttc gatggcgatt taatggaagc tctgtttgga tacgttgccg tggggaagaa 240  
atcaccagaa caaggcgatg agaaaaaccc taaatcaacg caaatattca tacttgatcc 300  
gagaaagtct caaaacacag cgattgtgct caaatcatta ggtatgacac gtgaagagct 360  
tgttgaatca ctcatagaag gaaacgattt cgtgccagac actcttgaga ggtagctag 420  
aatagctcca acgaaagaag aacnatcc 448

<210> 2525

<211> 520

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-038-Q1-E1-E6

<400> 2525

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 tcgccgaaga tcgctccgtc gatgttgta tcggactttg caaatcttgc cgcggaggct 180  
 aagcggatga tcgatttggg cgccaattgg nttcanatgg acattatgga cgggcatttt 240  
 gtttctaacc taacgattgg tgctcctgtc atcgaagagt ttgaggancca cacaagatca 300  
 taaccttgat ggcaactnan tgggtggacga aaccaatgg gaataangtg gattaagaat 360  
 gggctaaaag ctgggagcct nctggtttca acattccaac gttggagggt ggcccaaaga 420  
 nnaattggca agaacttggtg gagaaggatt aaagtgctg gggaatgaag gcaaagtngt 480  
 gggtcntaaa ggctggaaan acctgttgna caagtccaaa 520

<210> 2526  
 <211> 489  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-038-Q1-E1-E7

<400> 2526

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 ctcaacctaa acctcagatt catcatcatg gcttcttctt ctaactacga tggaatcctt 180  
 ctcggtatgg gtaaccact cctcgatata tctgccgtcg tcgacgacga atttctcacc 240  
 aaatacgaca tcaagttgaa caatgcgatt ctgcgggaag acaaacattt gcccatgtat 300  
 gatgagatga gtagcaagtt caatgttgaa tacattgccg gaggtgctac tcagaactca 360  
 atcaaagtgg ctcaagtggat gttcaaatt cctggggcaa ccagttacat gggatccatt 420  
 ggaaaggaca aatatggaga ggccatgaag aaggatgcta cagcagctgg tggttaatgtt 480  
 cacnattat 489

<210> 2527

<211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-038-Q1-E1-E8  
  
 <400> 2527

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ggggtaacac agaccctttt tccctcttac tcaaggttct tctttgtcat cttgttgccg   60
aatccacaaa gaggagaata aagattcgac ctttattaga tattaacgac tctggatttt   120
tggggttttg gagttggatc cacatgggtt cttatccgga tggattccct gnatccatgg   180
acgagttgga tttcaataan gactttgatt tgctccctc ctcaaaccac accttaggtt   240
tatgctaata ggttctatct agatgactta natttctcat ccttggatcc tccagaggca   300
taccctcnc nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nagctgtngc agganatctg   360
tnatcatctt catctgatga cgctggattt ctctgattcc tgttttgna               409
  
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<210> 2528  
 <211> 440  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-038-Q1-E1-B7  
  
 <400> 2528

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gtgagcctgg tacttgtctg ttgtttcctt aggcatccca atggaagagt attctccggt   120
aatggactac ggaagacatc atcatcctcc tgcaacatct gcagctctca tggagctaac   180
cactcgtctg gatttcttca aggaacgacg gtcacaactt atggaacaga ttcagaatct   240
tgacctcaac tatggttcct cttcttcttc tctgcaccga tcctcttctc caccatggga   300
attaggctct ttgagaaagc tcttgtccaa aaaaatagaa aaatgtaaaa gaaagtctcg   360
tctgtgcaga ctcttcatgc ttgtaaaacc ggttcaaggt taaaccaact atatatttac   420
cacgaaaatt gatgngaaa               440
  
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<210> 2529  
 <211> 493  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-037-Q1-E1-G3

<400> 2529

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gtttttcacg gagtatggtg aagcaagtca atatcagatc caagaagttg ttggcaaagg 180  
aagctacgga gttgttgctt ctgcggaatg tccacacacg ggaggcaaag tagccatcaa 240  
gaagatggac aaatgtgttt gaacatgtct cagatgctat tcgtatcctc agagagatca 300  
agcttctcag gcttcttcga catcctgata tcgtggagat caagcatatc atgcntcctc 360  
cttgctgcaa ngaattcana gatatanatg ttgtttttga gttgatggag tctgatcttc 420  
accannttct taaggtaa at gacgacctca ctccncagca tcatcaagtc nnccttgtac 480  
caacttcctc ggg 493

<210> 2530

<211> 502

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-037-Q1-E1-G4

<400> 2530

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anagagacng nnagtgagga gaagaganaa agnatttcga gacaaatggg ccgccgccgc 120  
tgctcgctct ctccgtcanc atccanacct tgggatggtg acatgtctac cgatnaatcc 180  
tccaancgtc gtantttctg acgtcatgac ggcgccagtt cgaccagaca tcgttaactt 240  
cgttcacgcc caaatctcca acaacaagnc gtcagccata cgccgtatcg aagaangccg 300  
gtcaccanac ctccgccgag tcttggggga accggacgtg ccgttgtctc gtatncctcg 360  
tgttcccggg ggtggtactc accgtgctgg tcaagctgcg ttcggtaaca tgtgtcgtgg 420  
tggtccgnat gttcnctcca accaanattc tgggcgccgc tgggnacngt cgtgtcaatg 480  
tcaacaatga aagcgtcang ca 502

<210> 2531  
 <211> 445  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-037-Q1-E1-G5  
  
 <400> 2531

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agatgaacaa gatatgaaca aaaccccggc cggttacgcc tcggcggatg aagctcttcc  180
catgtcttct tctaacggca aaatcgagag gaaacgagga gttccatgga ctgaagaaga  240
acacaagctg ttcttgcttg ggctgcagag agtcggtaaa ggagattgga aaggaatatc  300
aagaaacttt gtcaagacca agaacctcta cacaagttgc nantcatgct cagaaatact  360
tcctcaggcg aagtnatctt aaccgtcgcc ggccgaaaga tctagccttt ttgacatgac  420
tactgatacg ggtcataccc aatng                                           445
  
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<210> 2532  
 <211> 496  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-037-Q1-E1-G6  
  
 <400> 2532

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cttattcgat tttcttcaga ttgaaatgg tgtcgttcaa ggtctctctc gtctctactt  120
cgcctattga tggccagaaa cctgggactt ctggactccg taagaagggtg aaagtgttta  180
agcaaccaaa ttaccttgaa aattttgtcc aggcaacgtt caatgctctt actacagaga  240
aagttaaagg tgcgacactt gtggtttctg gtgatgggcc gttattattc agagcaagct  300
attcagatta tagtaaagat ggcagcagct aatgggtgta gacgtgtgtg ggttggtcaa  360
aacagtctgc tatcaactcc tgcagtatca cctattattc gtgaaagagt acgggctgat  420
ggatctanan gccacaggag catttanctt aanagcaggt cataatcctg nggtggcccaa  480
  
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antgaggatt tccgga

496

<210> 2533  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-037-Q1-E1-G9  
  
<400> 2533

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caaattccac ttaagacggc ggattttctc accgggaaat tggttttaga tggataggac 180  
tgaggaaatc gaagaatccc ccgccggacc ttcttccgga tccgcgaaat tgaagctcgg 240  
aaacagagca gatcctttcc ttgttgtttg tagatgcttc aagcctcgtt acctctctca 300  
tcgccattct ctgtgttgte cgttaacgtt ctgctgccc ttcgctcctt ccgtgacagc 360  
cacgatctct tcgatggaat attccggtgt tatgctgtgg gggattgnct ggttttggtg 420  
gtcc 424

<210> 2534  
<211> 474  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-037-Q1-E1-H10  
  
<400> 2534

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tctagtccag gcaaatcaaa ctgctcatct tctggttccg aggcgaagaa accaattact 180  
gaaacgccgg cgacttctga cgtgaaggag gaatcgccgg cgtcggtttc gcctatcatg 240  
gcttcatctt tgggtttgaa tagaatcaag acgaggtctg gcccgttgcc gcaggaaagt 300  
tttttcagtt ttgagaatga ttatgcaatt ccggtcttac cgtgttacia gttgtcgaag 360  
ttggatactg gcaagaagga agctggaagc agcaaggtag atattgggac cgctaagaag 420



cagcaatccc gcggttgcctgg gcttcgggaa ctgggtcnaa tcaaggtatc acct 474

<210> 2535  
<211> 493  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 2535

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tggttatcaa tcatttggac aaactgtttg tcacaaatga cgctgctact atagtgaatg 180  
agctcgagat tcagcaccgg gctgctaaac ttctggtttt agctgctaag gctcagcaag 240  
aagaaatcgg agatggagct aatctgacaa tctcctttgc tggatgaactt cttcaaaacg 300  
ctgaggagct tatcaggatg ggacttcacg cgagtgcgat cattagtga tataactaaag 360  
ctgtcagcaa ggctgttgaa natactggaa caactggntg agactgggtc tgagaccatg 420  
gatgtacnng acangggatg aagttatttc tccggatgac agcagctgtt gcaaggcagg 480  
cantttgggc aag 493

<210> 2536  
<211> 447  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-037-Q1-E1-H5  
  
<400> 2536

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ggctcggatg agctctacag tggttggtgaa agttgcaacg agaacattcc ggaatgtagt 180  
tcattttttc ttccaaaagc tgccattgga tttatcacia accttgcatc aagccttttt 240  
ggttatcagg gttccacttc gggtataagt tcacattcac gttgcaatga ttctgaagat 300  
caaagtgact ctgaggtcct tggtcaagaa acangcagaa tcatatgaca actctgaaac 360

aaattcaggt gaagtgggat atgaccacca ngatgggtcan catacctata gaaggaaaag 420  
gaattaacaa gacactggnt tcaactc 447

<210> 2537  
<211> 432  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-038-Q1-E1-A11  
  
<400> 2537

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gctaattgta acccgaaaag aacctgttct cgtctctcca gcctccgaaa ctccaaaagg 120  
tctccattat ctctcaaate tcgatcaaaa catcgccatc attgtcaaaa cattctacta 180  
cttcaaatca aactcaagat ccaacgaaga atcctatgaa gtcatacaaga agtcactctc 240  
cgaggttctc gttcactact atcctgccgc agggagactc acgatcagtc ctgaaggaaa 300  
gatcgctgtg gattgcaccg gagaaggagt tgtaagtggg ggaagctgag gccaatgtg 360  
ggatagagaa gatanagaan gntatntcgg gagattgatc aggggagagg ctcggtgaaa 420  
aggtggggtt gg 432

<210> 2538  
<211> 359  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-038-Q1-E1-A12  
  
<400> 2538

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ctatgacccc agtgcgtctg cttcgtctcg accgctgac ggaataaaaac cancgccgag 180  
tttctaggt ctatgtgtat tgtaatatcc tccggaaatg gcagctttcc tcgtcatggt 240  
tatcttcacg atngctctgt tcngtcgcac tcnttgggt tttcttcaag tctctccctt 300  
gggattctcn ggcatagtgn tggaataant ctcagttttc agtttgntgg atggaactg 359

<210> 2539  
 <211> 488  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-038-Q1-E1-A8  
  
 <400> 2539

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cctcaaattc ttcataaaca aatccacttc tgcattggtg ggagaatctg ttagagaatt 180
tttggtgttg ttgggttcag atttggaaaa tttccttttt ttcgagtttc ttctgaatta 240
ttcatcgtgg agattctcgg atcggaagg gctgcgagag gtgggttttca cggcggggat 300
agattcatct tctgtcttct cctgaggggg tagccgaggc tccggcctcg gcggttttta 360
aaccctacc tttacaaatt ctgggaaatt agaaaaaaaa aggtttgatt tttcagtttt 420
tgctctgttc ttctctcgaa agtttttggt ttgttcgaga atttctggta aagtganatt 480
gttgatcg                                         488
  
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<210> 2540  
 <211> 482  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 2540

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gttcgtcgac gtattatcgt cggaaaaaag ctatgagaat ctatttctca tagctccagt 180
aatgtgaaat cgagacaacg ctttatcttc agaattctgt aatccatggg agattcaatc 240
acattccggt agattttttt ccagtttctg gggaagtcaa aaatttccag ggtttccgat 300
ttttgttttc cttttccaaa tgttctcgaa tcagtttggt ctcttcttcn ctcttctcct 360
atgtctccca tttgttttct tctttgtagc gccacatgtg tttccttctc ctctgggtg 420
  
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tg 482

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<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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tcttcnctan cgtcnggaaa gcatgaagtt ctcantgtcc gtgggtcatgt tgcgccatct 180  
gatgaaacat cctggaagtt nacttgangg atttacgcag actcaagtaa gtacacttgc 240  
agtaaaagat gactttctgg ttgctggcgg gtttcaagga gaacttattt gcaagcatct 300  
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tgctattgag atctacaaca naccagtggt tgcacttcat tttactgcgt caaataatga 420  
ctgtggagtt agagactttg acatgggaga agataccagc ttgttaagca tttccgtttt 480  
ccttgggcag tg 492

<210> 2542  
<211> 573  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-037-Q1-E1-G2  
  
<400> 2542

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gagcttccaa tcctcctcaa atcttccttc nnacganttt ttctcctaa ggtttaagag 120  
cttttgattc ccccgattaa atttccgccg aatttggtgn anc nanggat ctngaaanta 180  
ngaattgggtg gtgaaagcaa gattcgangg cagccggctg actggctgaa aggcgtancc 240  
tggttgcccc tngaacggtc angattgctc caantggcaa cgaaatttaa gtgtgaacga 300

cgaacctcng attccacggt gggangtcct tcaaangagt taattgcn c gaaacaacg 360  
atgtgccnng caaatcagcn agcgtttgat taaaaagga cgtaatcctc aaaagacgaa 420  
tnagactcct cctcaagcct aagggtttgc aagggtgat taacaccgtt caatatgggt 480  
ccgaggtttt tgtngccttc ctctgccttt ctgctncccg cctggcaaaa tgcctgggaaa 540  
acaaaaacca antggcgccc tcaaagcggg ttg 573

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<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-035-Q1-E1-E7

<400> 2543

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aaaaagtttg ctttttttcc tcttctaagc tcgtttcaga tcttcgattt caccattttt 180  
ataaactatt atgcgaactt agttttgttc tttgtgattt tgtatgacaa tgatcttctt 240  
ctctaagctt aatcgctcca tttctcgttc aaagggtatt ttgtacgggtg gtggtgtag 300  
atcggcggca aggcactta ctctgcggg acttgaggcg gcgtctgtga atgaagtgga 360  
aggtggatta ggggtttata angaagacac tttgcctcct taacttcacg gaaaggttta 420  
agcaataaag gattggatgg gg 442

<210> 2544  
<211> 420  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-035-Q1-E1-E9

<400> 2544

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ctttcatttg ggttaagaga agccatggat accgagtttc tccgaaccct agatcgctcag 180  
attcttttgg gtgtcttcgt tgccttcgtc gccgttggtg ctggtgctgc ttattttctt 240

acatcctcca agaaacgcag agtgtgtttg gatccaagag aatttcaagg agttcaagct 300  
 tgttaagaga catcaagctt agtcacaatg tggccaagtt cgtttttgaa ctcccaactt 360  
 ctacttctgt gttgggtctt cccattggac aacacatcag ttgcaagggg aaaggatggg 420

<210> 2545  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-F11  
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 ctcagactcc tctaaccacc gctccttatg gctcctggaa atctccaatc accgccgaca 180  
 tcgtttccgg agcttcaaag cgtcttggcg gcaccgccgt cgattctcat ggccgtctcg 240  
 tcttgctcga gtencgcctt aacgaatccg ggagaggagt tttggtgcta caaggagaaa 300  
 natcaattga tattactcca aaagacttcg ctgtgagaac tttaacacaa ggaatacggg 360  
 ggtgggtgct ttccagattt catcaagatg atacacttgt gttctctant tacaagggat 420  
 tag 423

<210> 2546  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tgttccatan tctacacca actgcagagt accatgctgc agcgcgtgca gtgggtggat 180  
 gcgcaatcta tgtcagtgat aagccaggca accacaactt tgatctattg aggaagctgg 240  
 ttcttctga tggctcagtt ctccgggcta agctcccggt tangcctacc cgtgactgct 300

tattcgctga tccagctaga agatggaatc agcttgctca agatctggga acatgaataa 360  
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 ataataacaa gattcatgat acnt 444

<210> 2547  
 <211> 498  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 2547

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 gtatgagcaa ngaaancaca gcacttgac caagcagcat gaanattaag gtcgttgcac 180  
 cacctgaaag gaagtacagt gtctggatcn gtggttccan tcttgcttcc ctcaacacat 240  
 tccancagat gtggatcncc aaggccgagt atgatgagge aggtccanna ancnttcaca 300  
 naaaatgttt ctaagctctc aagatcaaag gcttaaaaag ctgggggtttt atgaatggga 360  
 tcaaagtttc ttttttttct tttatattgt gcttctccat ttgtntgttt catttcccn 420  
 ttntgttttc cnttccaatg angcacntgt ggtttgacaa actcctccgg gtttttacnt 480  
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<210> 2548  
 <211> 479  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-F4  
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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn aagatcacac 120  
 tacctgcac aacaatggag ttctgggggtg ttgangttaa gaatggcaaa ccacttcacc 180  
 tagatcctgg gctagacagg ctctgcaca tctctcaggt tgctttggga gagagtaaga 240

acaatgtanc cganccaatc cagctttacg tgactgttgg atcggataag cttctcattg 300  
gaacgctatc tcatgagaag tttcctcaag ctgtctacgg agattgtctt ggaaaggaac 360  
tttgcgngt ctcatacttg gaaagaatgg gaacgttttc ctctctgggtt acaanagttg 420  
gatggcatct gattccccgaa gcttgaagga tttgattgat gattaacttn aggctgctg 479

<210> 2549  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-035-Q1-E1-F5

<400> 2549

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taggatcaat cgatcaagga accaccagca ccagattcat catttacgac cacgatgctc 180  
gtcctgttgc ttctcatcaa gtcgagttca ctcagttcta tcccgaagct ggatgggtgg 240  
aacacgatcc aatggagata ctggaaagtg tggaaagtgt gcattgcaaa ggctctcgac 300  
aaagccactg ccgatggaca caacgtcgac ggtggcttga aggccattgg gcttacagat 360  
cagagagata ctactgttgt ttgggagcaa atccactggg cttcctctcc aaaan 415

<210> 2550  
<211> 435  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-035-Q1-E1-F6

<400> 2550

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cattatgcct tgtggaacct gttcttattg tgctaagggc catgatgac tatgtgaana 180  
cttcttttgc tacaacagan ccaaggaac tctttacgat ggcgaaactc gtctcttttt 240  
gcgacatgat gattcaccag tgtatatgta tagtatggga gggatggctg antactgtgt 300



tacaccagct catggtttan ctctctacc aaagtccttg ccctactctg aatctgccat 360  
tctgggattt gctgttttta caagcatatg gtgctatggc tcatgctgct gaagatccgt 420  
cctggagatt cattg 435

<210> 2551  
<211> 448  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-035-Q1-E1-F7  
<400> 2551

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tggttacctt gggggatgan gagaanagat ttttcgctac ggcgttactg gagaaggga 180  
gacgatggca catatgttat tctctatcat nctgtatttc acangaagtg tccacctcaa 240  
gaaaggctat gtccgtgcgt gccttaaaac tggcgggttat gtgatttcnc ccataggaca 300  
aacgganaac aatcanttgt gaancacatg cntgctgttg attggaagtc ctggagatct 360  
tatgtgaanc cntccttacc tagatctatt accgtgaaaa tgccttgga caanttctgc 420  
cctgatacaa cgttttaagg gcanaaca 448

<210> 2552  
<211> 449  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-035-Q1-E1-F8  
<400> 2552

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taacggagtg ttcatggag agagtcatt anatttcgt tttcctcttg tcattcttca 180  
gatttgcctt gtcgtgcgcg tcaactgcgc tttggccttc cttctccgtc ccatgagaca 240  
accacgtgtt gtcgccgaga tcattggcgg gattcttctt ggccccgtcg gctctcggtg 300

gaatcacgtc gtacaagaat tcaattttcc cggcgagaag tctaacggtg ctcgacactc 360  
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atctctccga cgtaccggca aaaaagcga 449

<210> 2553  
<211> 478  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-035-Q1-E1-F9  
  
<400> 2553

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catcatcatc atagctatgc tctcctccc aacagattaa ctggttaagaa aagccattgg 180  
cgcgacgaag atgaagattt cgttgaagaa agaagtaaca agcaatcaag ctgtttatgt 240  
tgaggaaagc gagctttctg aaatgtttga taagatcttg gtatgtggcc ctgggaaacc 300  
tgtatgcatt cttaaccaga actttcctac agaatccgct aaagtcgtga ccgcacagtc 360  
aaatggagca aagattcgtg ggaagaaatc aacttctact aatcataagt aacgattcta 420  
agaaagaaac tgctgatttg aggactcctt tgggtgtaag tgcacaagct gtacagtg 478

<210> 2554  
<211> 501  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-035-Q1-E1-G1  
  
<400> 2554

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ggcgagaaga agacacgtca tacattgcgc cggttaagaga tctgactctt tctccattaa 180  
ttccagtagc tccgattggc aaagctcctg cgccattctc tcaagcaaag ttaactcaca 240  
agaacaatct gaatccttan ctccaattc caatggatca tcatcctacc acgtttccgc 300

cgtcaacggg cacaacaacg gcgccggagt nctcaagatt tgaatctaag ttccattcaa 360  
 caacaaccan tgcattcaat cgaagaagcc tttaagtatt tcaagatnta tctccaagct 420  
 ccgatgcatg ggatntaacc tcccgtgtag cctaatacan gtgttnccgg gagcctaatac 480  
 ccaaaaccgc cgctgggtaa a 501

<210> 2555  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-G11  
 <400> 2555

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 ctcaaagctc ctgatgtgaa gagtgtttgt tctgtttttc taatccaaga gatattgtcc 180  
 ggaactgttc ttcagtgttt ggtgtcttag aagaaagaaa cacttttgga gcattatgca 240  
 taggagtttc tgaagatttc aagctaatta ctatcattaa tcagctatga agtttatgaa 300  
 acttggaatc cgtcctgaca ctttctacac ttctgaagat ttaagatgtg tgtcctctga 360  
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<210> 2556  
 <211> 496  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-G2  
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 gagttaaaaa acgatgatat tcagctaaga ttgaattcca tcagaaggct ttctacgatac 180  
 gctcgtgctc ttggggaaga gaggactaga aaggaattga tccctttcct tagcgaaaac 240  
 aatgacgatg atgatgangt tttattagca atggctgaag aattgggtgt gtttattcct 300

tatgttggtg gtgttgagta tgcacatggt cttentccac ctttggaac tctttcgact 360  
 gtcgaanaaa cttgtgtag gggagaaagc tgttgagtcg ctttgtagag ttgggctctc 420  
 anatganggg acattgncct gggttgatca ttccatttc gtnanttaag cgacttgccg 480  
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<210> 2557  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-E6  
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 cttgatgatt acacacagtt tgggtgtaaat ttgcagactg atcaagagga tacctttcca 180  
 gatttttgtt catatggtgt gaatttgacg caggagccag atgaagtctt tagtattgga 240  
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 ggggcaacaa gattgnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360  
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 gcaaaggact ggatcttt 438

<210> 2558  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 2558

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 agtaggaatg agaaggcaat ggantatgta gccaaangat ggancgcgat taaanaanta 180  
 nagagagtta tcgattactg tgaactcaat gatcgtcgtc ttattcctct cctcagggga 240

gctaaagaga actttgaact tgctctggaa gctgaataat ttgnacactc atgctangta 300  
 ttggctttcc aagttgcacc tgaagtacca tgttcttga gcttgtaaag ctgtgggaac 360  
 tgctttgctt gtcgaaactg canacatggg taatgcagat gctcaatatg agctaagggtg 420  
 tcnt 424

<210> 2559  
 <211> 488  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-C5

<400> 2559

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 ttttttcaac aacctctctt cttcaacaaa ttctcttctc aaatcctcca aatcctctct 180  
 gccatgaacg ctactttctt cctcctctcc ancaccgtct ccaccgtcac aatcancgga 240  
 ttcaacggtc tcgatttctc atcttagaac cacatgcato ccttctgttg cgttacaact 300  
 gtctccgata actctccttc gatgcctccg ttacctgaac cacaaccgcc tctaccgaat 360  
 tacgccgccg attttggttc ggcgagatcc gaaccgatta taactcgatn tgcttctcaa 420  
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 atcaacag 488

<210> 2560  
 <211> 435  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-C6

<400> 2560

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tgatgagagt ttcttcgatt ctgatcagca aggcgacgac ggcaagtcca cggaactcaa 240  
tcagaagatc ggagacctcg agtctcagaa tcaaggaact ggccagagat aacgatgcta 300  
tcaatcgtaa aattgagagc ttgacggcgg agattgagga gttgagagga gccgaatcca 360  
aggccaagcg taaggatggg tgagatggag cgagagattg acaagtccga tgaagaaaag 420  
aaaggtcctg aancc 435

<210> 2561  
<211> 470  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 2561

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taaactcttc caactcttgg tgggggttctt gaaagtaaaa aactttgttg aaaaaaagaa 180  
atgaagcaaa ttgttataac agctcttggt ttactacaag cttatgttct tcatcaatcc 240  
acatgtgtta tgtcccttac tacacaagaa nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
nnnnnnnnnn nnnnnngatt atcaacagag agagaaggaa ttgcataaac aagagagtaa 360  
caacatgaga ctggttattt cactagcagc tacattttcc ttagttggta taatcttact 420  
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<210> 2562  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-035-Q1-E1-D11

<400> 2562

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gcagcagcgt ttgcgttcat agccgtgaaa cgtttgcttg cgatacaaag gacgcagcaa 180

cagctacact gagattctgc cagctttcag ttcctatacc ggagagagtc agagatttga 240  
 tcggacgggtt gacattggcc gagaaagtga gcttgtagg gaacactgcg gcggcgatac 300  
 cacgtctagg aatcaaaggg tacgagtggg ggtcggaggc tttacacggc gtttcaaagt 360  
 tgggacccgg tactaagttc ggtgggggtt accctgcanc caccagtttc cctc 414

<210> 2563  
 <211> 436  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-D12  
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 ccanaatcca gcaggagaag ccatgggcct ccgatcctaa ctacttcaag cgcgttcaca 240  
 tctcagccct tgctcttctc aagatgggtg ttcacgctcg ctccgggtggc acaatcgaga 300  
 tcatgggtct tatgcagggt aaaaccgacg gtgatacaat catcgttatg gatgcttttg 360  
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<210> 2564  
 <211> 497  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-D2  
 <400> 2564

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 aatacacaca atgaccaaag aagtttgctc caacattgga ctttggttat tgctcacgtt 120  
 acttattggt aactatgtcg tcaatcttga agcctcgac catgtctaca agagacttac 180  
 ccaaagcact aacaccaaat ctcttccgt aaaccagccc taccggaccg gtttccattt 240

ccaaccccc aaaaattgga tgaacgatcc taatgggcct atgatataca aaggaatata 300  
 tcattttttc taccaatgga acccgaaagg aagccgtgtg gggtaacatc gtgtgggctc 360  
 attccacgtc aacagactta atcaattggg atccacatcc tccagctatc ttcccatcct 420  
 gcaccttnng atatcaacgg gtgctgggtcc cgggttcagc taactaatct ccctaattggg 480  
 aaaacnggtt atcctcc 497

<210> 2565  
 <211> 507  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-D4

<400> 2565

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 ttgcttggtc ttagttttgt tgtttgtca agccaattcg caaggtttga aagtaggttt 180  
 ctacagcaaa acatgccac aactcgaggg tatagttaaa aaggtcgtgt tcgatgcgat 240  
 gaacaaagca ccaacacttg gtgctccttt gcttagaatg ttcttccacg actgcttcgt 300  
 tcgggggatgt gacngatnag ttttgtaga taaaccaaac aatcaagggtg agaagaatgc 360  
 aagttcctaa cctaagtcct ccaagggttg gcatcataga ccattccaan gcngctccta 420  
 aaaaaagtgt gtcccgggga attggtttcc tgccccggaa ancctgggaa cttgtcccca 480  
 aaaaaacca atnggttgca ctttaaa 507

<210> 2566  
 <211> 485  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-D6

<400> 2566

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atggccttgg caggatcaag cggaggctca tggntacgg gtttgtctca naaacccaag 180  
tcgaagaaca acacaagtga cgggccatac aagctaggcc aaatgtatga aggaggcagc 240  
tctaaggaaa caccacaaat gcccccgaa tttcgtgcaa ggccgagtca tcaacctacc 300  
tccagtgcct gtcaccggat ctttacacaa ccaggtagag agcatcaagg aagcatcatc 360  
tcaaggggac gagatatcag agatccggtt cacagatcag attctgaaaa agaagncaca 420  
tgattaaagt ctgaatatga gagacgatga gtgtgggctg ttcttccaaa ttgtggtttt 480  
tttgt 485

<210> 2567  
<211> 484  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-035-Q1-E1-E1

<400> 2567

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catataactt aaataccttg acagagggtc aaaacaatac cctcaaggac cttgcagact 120  
tgggattagt caagcttcaa caggaagga aagacagttg gtttattcct actaaactgg 180  
ctacaaattt atcagtcagt ctggcagatt catcagcgcg aaaagaggga tttgtcgtga 240  
tggaacaaa cttcacaatg tatgctact ccacatctaa gttacagtgt gaaattttac 300  
gactatttgc gaggataaga gtaccaactt ccaaactta ttgcttgtgc cattacaaag 360  
gaaagtttgt acaatgcatt tgacaatggc atcacatcag atnagattat aactttcctc 420  
caagcaagaa ttctcatcc acgatgttgc cgatngggc ccatccnatt ccagaaaaat 480  
gtcc 484

<210> 2568  
<211> 474  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-035-Q1-E1-E11

<400> 2568

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 tggaggagag atcaggctcc ggaagatggc ggcggccgag agatttaaag ggtggcggcg 180  
 atatcgaagg gattccacag gttttgggtc gtttggtttc gaatggttca agtaagattg 240  
 catgtcttta cacacagcaa ggcaagaaag ggactaacca agacgccatg ctcgtctttg 300  
 agaacttttg ttcgagagac gatacagtgt tttgtggtgt attcgatgga catggaccat 360  
 ttggtcatat ggttgccaaag aaagtccgaa gatacattgc cttcacact cttaanccag 420  
 ttgaaatgan ctcaagagtc agatnaaagc aacttagttt ggtgccaaag ggtt 474

<210> 2569  
 <211> 496  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-E2  
 <400> 2569

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 gtanataata tttgttttaa agaaatgatt ctccacaaaa tggcgttctt ggccgttatt 180  
 ctcttcttct tgataagcan cagcagcgtt tgcgttcata gccgtgaaac gtttgcttgc 240  
 gatacaaagg acgcagcanc agctacactg agattctgcc agctttcagt tcctataccg 300  
 gagagagtca tagatttgat cggacggttg acattggccg agaaagtgag cttgttaggg 360  
 aacactgcgg cggcgatacc acgtctagga atcaaagggg tacgaagtgg tggtcngang 420  
 ctttacacgg cgtttcaaatt gtgggaaccg gtactaagtt ccggtggggg ttaacctgca 480  
 nccaacaatt ttcctc 496

<210> 2570  
 <211> 493  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-E5

<400> 2570

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aaggatatgg atacnaattc cttgatgctc attgataaca atgggtcttt tgagatcgat 180

gaccaatccc atgtccatgt cgatgcctcc catacccttg aacctgtcac cctaccacc 240

aagcgcagga ggaagaantc tgacgtctgg aaccacttca ctggtgaaac tgttagccct 300

ggatctgcca aagcttgctg caanactgg cgcgaaatcc ttcgcctaca ttaatggcca 360

aaagttggca ggaactagcc atcttaaacy tcacattcaa ctgggtatct gtcccatgaa 420

ccgagacgac aagcagcacc ctccgcacaa atccgntact cccaacanca acaatgattc 480

tcccnagaaa cgc 493

<210> 2571

<211> 417

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-035-Q1-E1-B9

<400> 2571

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aatgagtcaa tcaaatcgtg tcagagacga agttacatta cttttactcc aaaaaacctc 120

tcattctgaaa aatcactcct ctgttctctc tgttttctta aatgaagcaa tctcaatctg 180

caaaatctct taccatttgg tcctcactgg tctcttcctc tacgttcgct ccttcgtctc 240

tctgtctttc ctgggtggtc tcgggtgacgc cactctcgcc ggtgggtccc tcgccgcgcg 300

atttgcaaac atcaccggat actctctttt ctccggttta accatgggcg ttgagtctat 360

ctgttcacaa gcctttggag ccagacgcta taactacgct tgccgcgagt tcaagaa 417

<210> 2572

<211> 456

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-034-Q1-E2-H2

<400> 2572

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cggagattat tccaactcgt ggagactatg cacggttacg caagtcgaag aactcaagat 120

tccgatccga atgttcccaa tctgggcttc tggatcatt ttctcagctg tatacgcac 180

aatgtccaca atgtttgttc aacaaggccg agccatgaac tgcaaaattg gatcattcca 240

gcttcctcct gcagcactcg ggacattcga cacagcaagc gtcacatctt gggtgccgct 300

ctacgaccgg ttcacgttcc ccttagcaag aaagttcaca nggagtanac aaaggattca 360

ctgagataca aanaatggga attggnccgt ttgnccccgt tctccgtatg gcanctgcaa 420

ctatccgtcc aaaatcatcc gtctccanaa gggcaa 456

<210> 2573

<211> 503

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-034-Q1-E2-H3

<400> 2573

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn ncgccattac 120

cagagctcaa cgagctctca ctttctttac gcacacttgt tggaacgaaa tatattcata 180

gagaagaaga atctcgaaac tcttgaatct aaaacaactc ggagactctg ttttcccttt 240

ccggagatca gatcggatca agatgcagac aaccaacggc tcagattcga cgttggcaac 300

ttnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nggggatgat 420

gatgatgcag cagcaacaag atgctggtgt ntctcaata ataagttccg ttaaatcaaa 480

ggccctaaca acaagcatca tcc 503

<210> 2574

<211> 440

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-034-Q1-E2-H5

<400> 2574

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ccattgggta tatcaattcg atcatctcca caaagctctc gaagactctt tcggtgatct 120
catcttcttc ttcttgttta gctcctcgga ggttactttg ttgttacta gttccaaaac 180
atgccgaaag agaggaaaga acggtccgta tctcttgata agtataaacg atcgccactg 240
tggttgaggg caagccttgc ttggaagccg agtgagaaac aagttaagga atgggaaaag 300
gctcgttgtc ctgtttgtat ggaacatect cacaatggga atcctccan ttgttcctcc 360
taagaaaatg ggttgtccaa cntacaatgt ncgaaactaa ncaaccggga atccnaactg 420
gttccattaa gtttcncaaa 440
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<210> 2575

<211> 442

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-034-Q1-E2-H7

<400> 2575

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agtgatatta tgacttgag ccaaacactc ggaaacaaca acaccaaca ataccatctc 120
tgcgaggaga tcggccgtgg ccgtttcggc accgtctctc gcgtctacgc tccggccacc 180
ggtgatttct tcgcttgcaa aaccatcgac aaagcctctc tctccgacga ccttgaccgt 240
gcctgtctcg acaacgagcc taagctcatg gctctcttgc cctatcacc taacatcggt 300
caaatccatg atttcacga cactgattcg actctctcca tttcatgga gtcgctcnat 360
ccctcngttt cgatntacga cgtctcgtct cttcnggaac ttctttganc tcanacggng 420
tcttcgctaa anagattctc aa 442
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<210> 2576

<211> 452

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-035-Q1-E1-A1

<400> 2576

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cgacatggat ttccgtgacg ggcctcgtt tcttaaagtc ggtgaagaga aagagatcca 180  
acaaggtttg aagaagaagc ttcttaaaga aggtgaagga tatgaaactc ctgagaatgg 240  
cgatgaagtt gaagtgcatt aactggaac tttgcttgat gggacgaaag tttgattcga 300  
gtcgtgatag agcaacgcct ttcaaattca ctcttgaca aggtcaagtt attaaangat 360  
gggatattgg tattaagacg atganngaaa anggtgaaaa cgctgtnttc actaaacctg 420  
cggagnctag natatgggga anccgggtcc cc 452

<210> 2577

<211> 439

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-035-Q1-E1-A2

<400> 2577

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accacaggat ccggtctcaa gaagcatttg gatagcaaag atttttctca gccacaatct 180  
gtgtcttctt attcctttga taaccaagg gacctcaacg cagagagttt caagattatt 240  
tacanaagat taaccgatat ggtttcagga caagatgagg ctgctagagt tatcagctgt 300  
gcaactgtcac aaccgcctaa gactgtcact cgaanagatg tttggcttaa tttggttggg 360  
tcttgatact gtangaaaga gaagaatgtc nccttgtcct tgctgaaaat gtgttacaaa 420  
agcgaacaca nattttatg 439

<210> 2578

<211> 475

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations



<223> unsure at all n locations  
<223> Clone ID: LIB22-035-Q1-E1-A8

<400> 2580

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tactgcagct acatcaaagc tcaatcctgg agatcatggt ctagggatct ctccacgctc 180  
atctctctct ccaggaactc agagtctcct gctctttatt gaggctttct ttgttctctg 240  
tgagaagatt caaactccgt caatgttaca gcaggatgca actgtgacag cgggagaagt 300  
aaaggagtgc tctactcatg gttcttcatc gaaaaccatt gtagattctc agaagaaaat 360  
tgatggttct gttacatctt caaagtttgt ggagaagcac aggcggcttt taaattcatt 420  
tgtaaggca aaatccaaag tttgctggag aagtcttttt caatgatgct caaaggaaca 480  
aggctgantg a 491

<210> 2581  
<211> 423  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-035-Q1-E1-A9

<400> 2581

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cagctgaaat ttaagtttta cagtgaatcg tgcctaatag cagagactat cgtagaaaac 180  
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tttcacgact gttttgtcca gggctgcgac gcttctctcc tcatagaccc aacgacgtct 300  
caactatcgg naaaaaacgc cggcccaaac tttancgtga gaggggtcga gctgatcgac 360  
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tca 423

<210> 2582  
<211> 461



<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-B11  
  
 <400> 2582  
  
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 cccgggaaat agtaccaaga aaggntatca tcgatcaaac tcttcttggt ggattcttca 180  
 gagatgggtt tagtcaacgg gagagcttcg ttgacctttc tctcgcggc gttgaccatc 240  
 atcgctatgg tcgtcgaggg tangtttgtg gtggagaaag aaagcataag cgtgctgaat 300  
 ccagaggaga tgangtcgaa gcacgacggc tcgatagcca atttcggttt acccgattac 360  
 ggggtgggtt ttaatcgggt caatggttta tccgggataa gtaaaancca tggatgctcc 420  
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<210> 2583  
 <211> 509  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-B4  
  
 <400> 2583  
  
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 tgtgacactt ccttctgtta tgatatccaa gttacgttcc agctttcaag agctatttca 360  
 ntccantgaa gctgaacaag atgagcttgc acatgtgaca atgcagtatt gggcagcatc 420  
 ggctaagttg ttgtgctana acctaaatat ccaatcaatg gattatgtca caaagtgaag 480  
 aanagatgaa acctttgncc tcaaccgtc 509

<210> 2584  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-035-Q1-E1-B6

<400> 2584

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tgagcttctt tttttgaagt tcttgagaac aagtgaaga gcttaatatc cacaagactc 180
ttgtttcttt cttaaattggc taaagtttat tggccttatt tcgatcctga atatgagaac 240
ttgagctcca gaatcaatcc tccaagtgtt tctatagata aactagctg caaagaatgc 300
actcttgtca aggtggacag tatgaacaaa cctggaatac tacttgaagt tgtgcaagtc 360
ctaaccgatt ctccgatctc actatcacta aagcttatat ctctccgaa ggtgggatgg 420
gtcaanggac gtaa 434

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<210> 2585  
 <211> 449  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-034-Q1-E2-H10

<400> 2585

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aggaatagcg atgacagtaa cgctgccatc tttggaaacg ttcagcagca aacgcnagaa 180
gttgtgtang atggtgcggg tgggcgggtc gggtttgcnc caaanggggtg tacttaantt 240
agttaatgaa naacataacg gggtaaattt taaatttatg gatttggcac anattatcgt 300
tacccttaat caagtgtgta atttgggtaa agatcagaat tcgtgatggt ctttgaaata 360
attgtatagt aataagtgtg catgatacaa caattacnan tacgcntttt gnaaaaaaan 420
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<210> 2586  
 <211> 447  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-F3

<400> 2586

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gatggagatc ttggattcca tggaatgcaa acattctact tgcctgctct tcttgaccag 180
ttccctccta ctgatcaatc tccttaccct gcccctcctc ctcagcttcc tacttgtgtt 240
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ccacggagct atcccatagt cttgacggan ggtgatggat naaaaatatt gtcagttgca 360
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atacgcanac aagtgtatct gtctctgt 447
```

<210> 2587  
 <211> 439  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-F6

<400> 2587

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gtgttggtgt ggtcgggtat ggaaccgaga atggtcgtga ctactggatt gtgaaaaact 180
cgagggggcga cacatggggg gaggctggct acatgaagat ggctcgcaac attgccaatc 240
caagaggcct atgtggcatc gcaatgcgag cttcataccc tctcaagaac tcgtttttcta 300
cggataaagt ttcggttgcc taataatatg aactaaatgt atgcatgga acggatcggt 360
taagccatta tcgttattcg actttgaagg aaactaaaaa atatgtgggc gantgggttg 420
gtttgttata antaagcat 439
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<210> 2588  
 <211> 450  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-F7

<400> 2588

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 agaagaaaga agaagcttag aagagtnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 nggacgtatt taaaacgagt tttcttatcc acgacaagga tatccaaatc ccgtaaccaa 300  
 acacatccta acgttacttt aacatcggca agattnatct caaaaatccc tccgnnatcc 360  
 tcgtcaaacc cgatacaaca aaacnaacc gaaccggaa anagttatta ataagnaanc 420  
 gaaattcgan attnccctct tcgaacaaat 450

<210> 2589  
 <211> 445  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-033-Q1-E2-F8

<400> 2589

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 caaaaacaga gctgtgttat aaacgagaat ctgaagaaga tcgctagacc ggatcatttc 180  
 ttgcctgtga ctgtgatctt gggtcttggtg tttttggctt tctttggaag atctgtagcg 240  
 attatgttta cttgtatcgc ttggtacttg gttccaacga ttcaagaaca gagtggaac 300  
 agaggatcat caccgtctta cgcgatgaag aagaaagatt tcgctaggaa attgagtatt 360  
 gaaaacagaa catcgtttaa tccaagaact gttcgtgatc attctcctcg caagtagaag 420  
 aatttcctaa ttttggtctg tcgtg 445

<210> 2590

<211> 448  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-G1

<400> 2590

gatctccttc ttcttctcct tctcaaactct tttttttcag gcgtaacgaa tcgaatcata 60  
 aacacttacg cagaaacaaa aactaaactt tggatctttt aaccgaccat agagattcgt 120  
 gggttcttct tagtttcgac agattcttga tccgtttttag ttgttacgct catcttttgc 180  
 tttatacatc agacccttct cttctcttcc ttctttatct aagaaacatt agggttcttt 240  
 gaaatcttgc taaaaaaaaat ggggtgtgag aaaatgggtgt gtttagcttc tcgtacgggt 300  
 cgtcagtttc agagatacaa caaaggctcg cgtcaagtcg ttggatgtgt tccttacaga 360  
 ttcaagctat ctaaagatgg naaaataagt gatgaagtag aagttcctgn taactcctcc 420  
 caaaaanggc angccttaat gttcccca 448

<210> 2591  
 <211> 487  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-G11

<400> 2591

gccaaactct tctccctcga tcgtctccgt cgccgatctc gtttcttcat tttccgcgtg 60  
 ttgattggta caaaggttta atcaaaggt tggaggagga gttatccagc aaattcttag 120  
 gaggaagctt cactcccaat cacttgcaac tccggttttg tcttggtttt cttcgaagaa 180  
 agctcatgag gatgctgggt cttctgggtgt aagagcactt gccttggttg gtgctgggtgt 240  
 tacaggactg ttgagttttt ctacagtagc atctgctgat gaggctgaac atggattgga 300  
 gagtccagag tacccttggc ctcatgatgg cattcttagc tcatatgacc atgcttcgat 360  
 tcgtcgtggg catcaaagtt tatcaacaaa gtccgttgca tcatggccat tcaaagtcc 420  
 ccngattctc aataanccga agaacttttg tgggggtgtc cncctaaca caagaaggga 480  
 aagaagg 487

<210> 2592  
 <211> 503  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-G3

<400> 2592

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tccgccagaa atggatggaa tgatgataga gctagcagta caaacgaagc aagtcttcat 120
tctgctcttg attttggtagg aaaatctagt atagcttctg tgcccataac agacaccaca 180
catgtgaaat ctgagactgg ctctccaaga cattcatcct ctgctaaaat ggatgaaact 240
aatggccggg aggaaaaatc agagaaggaa ctgaatgatg atgggtgaata tttgattaga 300
ccttatcttg agcatcttga aaagattcgg ttcagataga actgtgagag agttgttgat 360
ctcgacaagc atgatggaat cttcttaata ngggaattct gtctgtatgt gatagaaaac 420
ttttacattg acgaagatgg gtgtatttgt gagaaagaat gcnaagatga gttaccgtta 480
atgatnaaac gttgggtgtg aaa 503
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<210> 2593  
 <211> 353  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-G5

<400> 2593

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gctgaattct gaatccagaa tccatcccaa aaaaaaaca tatactgtga gtttcaagta 60
gagagggccg ttcagactga ggattggatt ttattggtac tgagagtggg aacgtagtca 120
ttcatgagtt aagttttgct tggaatggtc gtgagaagtg ggatcatcgtc tttttccctt 180
tgcgttggtg tgtgtgatgt tggtaggggt tatcttcgtg cttcttgcgtg aattgagtat 240
attgtatcag taaagaattt ataacttaaa aagagcctta tgtcaaatac gacgtcgttt 300
tgtatgggaa atggattttt tacaccgctg aaaaaaaaaa aaaaaaaagg gng 353
```

<210> 2594

<211> 440  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-G7

<400> 2594

gcagagacac aaaggcgaag agctatgtcg tcgtcgggtg atttcgtgac ggaacagggg 60  
agatgcggcg acgatggtaa cggcgccgga gagacagtaa agaatggcga aattgatcat 120  
ttgctttccg aaccgtcggc tccgactatt tctctcccta cggaatcttt cctcagagca 180  
gcgacgttac tcaagaacca ggttgtggag gccacgtgga aagggtggtgt cgaagctctt 240  
gcctctgggt cgggtccagt gctggattcg actgtgtaca cangactact cggcacaacg 300  
ttcacctgct tgaaatcgta ccaagttacg cngaancatc aagatctgct aacttgcgca 360  
nagattatcg acactttgcc aaagttnccg gtgccacaan cangcacgtn acattttang 420  
ttgaaaaagg angatttggt 440

<210> 2595  
<211> 467  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-G9

<400> 2595

gggaaaaaat tggattaagg tgaaaatcgc tttctctgaa aatcnnnnnn nnnnnnnnnn 60  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnntctt 120  
ttgattcaag tcaaactact ctcagaagtt ttctcatcgg tatcgagaga gatccatcgg 180  
attctatcat cggatgttat atctgttcgt cgggtggttat cggaggatat gctccgtggt 240  
tggttcgggg gtgttagtgg ccggtgaggg agatggtgat gatggtggcg gttgatgata 300  
gacaaaatta naaagcgtgt tttcttattt gtttcgtttt gagtttgtct cttaatgtgt 360  
ttggtantag aagatgatga anaaggggaa aaggaaagaa cagtggcttg ttancgaaat 420  
cccttaanaa taaatcctcc ttgccttaaa actggtaccg gtaacgc 467

<210> 2596

<211> 469  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-H10

<400> 2596

gccacgcgt cccgatcaatt tagcacttgc taatacatta acagtccaaa tgagacttgg 60  
gtatgtttga tggtaacctt gggccgtacg ctaatcttgg gccaaagagat gtttgtactc 120  
cggcccataa acatttagct cttgaagcag cccatcaagg gattgttctt ctcaaaaact 180  
ctgctcgctc tcttccactc tcccccaaga cgccaccgca ccgtcgccgt gattgggtcca 240  
aactccgacg tcaactgagac tatgatcggc aactatgcag ggaaagcatg cgcctatacg 300  
tcgccgttgc aagggatttc aagatacgcg aggacacttc accaagctgg ctgtgccggc 360  
gtggcttgca aagggaacca aggatttggg gcaacggang cancggcgcg ttgaaaccga 420  
cgcgacgggt cttgtgatgg gaataaatna gtcatagagg naagagaca 469

<210> 2597  
<211> 529  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-H12

<400> 2597

tggtttgcct gcgcttagcg ntgccgtatt cgnngggaaa tccacgcnng anccacacgc 60  
gtccgctcct catcctcctt cttccaagaa ccaaaacctg agcaaagttt gacacggtta 120  
gaagatcacg tgagcatatg agaagccgag aagagagcga gtttgaaaca gtttgggtga 180  
tgctggtggt tcatcaaatg aagctgctaa caaaagacaa ggaagagctt ctcaagaaca 240  
atagttatga caacaagtca cttttgcata agaattctta tgatggtact ggaaaatcta 300  
agcctaaacc taccaacctt agagctgatg aaagtcctga aaaagtcaca gtggtgccta 360  
aattcgggtga ctgggacgag aacaacccgt catcagctga cgggatacac gcatatcttc 420  
aataaagtcc gtgaagagag aaattctgga gcaaagtga atgggttttc aagaacgccg 480  
actcatcaaa agtcccgtta acccgaacaa cacttctca agttgctgc 529



<210> 2598  
 <211> 507  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-F2

<400> 2598

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ctgttacgcc tgcngtacn gcntccgaaa attcccnagg togaccacg cgtccggtta 60
caaacccgaa aacaaagaac attcgtctct acgtgaagcg tgtgtttatc tctgacgatt 120
ttgatggaga gcttttcccg agatatctga gctttgtgaa gggagtgtg gactctgatg 180
atcttcctct taatgtttct cgtgaaattc tccaagaaag cagaattgta agaatcatga 240
gaaagaggct cattagaaaa acctttgaca tgatacaaga aatctctgag agtgaaaaca 300
aagaggatta caagaaattc tgggagaact ttggtagatt ccttaaattg gggtgtattg 360
aagacaccgg taaccacaag cgtatcacac cgctacttag attcttcagt tccaagaatg 420
aanaggaatt gacaagcttg gatgattata tcgaagaaca tgggagagaa ccaaaggcg 480
atctactanc tcgcaactga taatcct 507
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<210> 2599  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-D5

<400> 2599

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gcaccgatgt aaaggtaaga ggaagagatt tgattgaatg actcattcat tgttagtttt 60
tggctatgtt taggattatg ttctaataag tgttcttttg ctgttttcag atgagtccta 120
cagatgaaga tgaattctct atttacaac agagaagcac tcatatgaga aaccattctt 180
tagaagagga tttggaggct gagaagacca tttcctttca agataagggt gatccaagtg 240
gagaagaaca aactctgatg agaaatgagt ccatctcaag aaagcaaagc gatctcgaga 300
caccgaaaa gatggaatca tttagcacat ttggcgatga aatccaatcc gtgggatcga 360
agtctacaaa agtatctgaa gactacaatc aggtgacgat gaanaagaaa gaagaagana 420
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tgttgagtta gaacaagatc ca

442

<210> 2600  
<211> 447  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-D6  
  
<400> 2600

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ccttgttctc tatttttttt gcacaagcaa catttagctt ctgcaaactc cagttcatct 120  
ctcaaccctc atatcgccgt gttttctcgc tctagtaccg cgagctcgga cgaaccagga 180  
agcaatccgt taatctagaa gcggtgttga gaagatgacg attacatcaa atatctctgt 240  
acagaacgat aacctcgttg ttcaaggga gactatcctt accaaaatcc ctgacaacat 300  
taccctaact ccggttaccg gtaatgggat tcgtttccgg ttcanttana aggcgcgacg 360  
tttgaacaaa gcaagagtct tcatgtgttc cccatcggtg tattggaggg tcttcggttc 420  
angtgetgtt tccggtttaa gctaagg 447

<210> 2601  
<211> 450  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-D8  
  
<400> 2601

gatcaaaatt cacaccggcg attttgagat tggttctctga ttggcttaat ccgagagaat 60  
caaggaattg aatggccaag tgaatcagat gcatcgagca ttgctactct ttctgtgtct 120  
cgctgcgaga agcctgcaca tcttcagtgt ccgaaatgca tagacttaaa gcttctctgt 180  
gaacaagcct ctttctgcac tcaagaatgt ttcaaggcag cttggagctc gcacaaatca 240  
gtacatgtga aagctcagct gtcttcaatc ggtgattaag aactcctgat ctatttctct 300  
aaggctggct ctattgcgtc aagaaaggnc aaggctaaga acacctaagc ttccacactt 360  
tgattggact gggcctctaa agcaatatcc catatctaac aagcgtgttg tgctgtctga 420

gaatgagaaa cctgactggg caattgatgg

450

<210> 2602  
<211> 446  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-E1  
  
<400> 2602

gttcaaaaga agaaaaagaa attacgaaac tttcttcttc aagatatttc aaaatcaaac 60  
tttggtttta gggteccann nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnaatccctt gaaagcttat aggctccgtt 180  
gaacagttat aacttgtgaa agttgaatcc ttttaaaccg acagaggaag atctcagatg 240  
gcaaacaaga taagtgaac tgcttccaag atggacgatt atgaggctcg ggaacagatc 300  
ggacgaggcg cttttggttc tgcttttctt gtaattcaca agtccgagag acgaaagtat 360  
gtggttaaga agattcgttt ggctaaacaa acagagagat gcaagcttgc tgcaatccaa 420  
gagatgaatt tgatatcaaa agctta 446

<210> 2603  
<211> 466  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: LIB22-033-Q1-E2-E12  
  
<400> 2603

gggaaaatca aattctcaga caactttttt cgaagaagac gacgaatttt aaagattttg 60  
ttttctatat tctcttctga tagtgaagtc tcggagactg aatgatattg tttctggtca 120  
acttaaccaa tttcagaaca tggcaaacag agcagacaac tcaatgcggt gttcaaatag 180  
taagaaaccg aatgacggta tgatgctcgt aatatcgatt ttcgcgggaa tagttatcgg 240  
atttttatta ggcatatctt tccctacatt gtcactaact aagatgaatt ttccatcaag 300  
cattcttcct tctgttgcta ctgtctacat agaaaatgag aaaccggaga aatcatctaa 360  
gacgagttca caaaacgaaa gtgatgcac acatcatcat aagatttggg gttcaacgaa 420  
tcctccaagg gcagagatgt tacctccaag tttgttgcaa ccgaat 466

<210> 2604  
 <211> 503  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-E2

<400> 2604

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ctgttacct gccngtacgc gtccgaaaat tcccnaggtc gacccacgcg tccgaaagaa 60
gaaacctttt tgattctctt tgcgatttct ttgttcaatc ttttctcaga ttgtgtgaat 120
cgggttttaa tccgggtttt agggctctctg ttttcaaag ggtacaaaa agtttggagc 180
tttactgtag aaagatttga ttttctgttg acccactccg agattttcgg atacaaatca 240
gggttttagg gtttttgttg gaatggaaga ggattatcaa cagccgaggt ttacgattgg 300
taggcaatca tcaatggcgc cggagaagat tccggagccg tcggttcact cagaagaaga 360
ngtgtttgag gatggagaag agatcgatgg tgggtgtgaga ctaatgtatt tggctaata 420
angtgacatt gaagggatta aggagcttaa tgattcaagg attgatgcta attacagaga 480
cattgatgat cggactgctt tac 503
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<210> 2605  
 <211> 453  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-E3

<400> 2605

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ggtttgtgaa agatcagttt gttgaatttc aggaatcaac cattggtgca gcttttttct 120
ctcaaacatt ggctgtgaat gatgcgactg tgaagtttga gatatgggat acagctggtc 180
aggaacgata ccacagtttg gctccaatgt actacagggg tgcagctgct gctattattg 240
tctttgacat tactaatcaa gcctcatttg agagggcgaa gaaatgggtt caggaactgc 300
aggcacaagg taacccta atggtgatgg ctcttgctgg aaacaaagct gatttattan 360
acgcaaggaa agtgtctgca gangaagcag agatatatgc tcaagagaac aancctttcc 420
```

ttaagggaaa cctcagcgaa agancgcaac aaa

453

<210> 2606  
<211> 483  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-E4  
  
<400> 2606

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cttcattact cgcaccatga ccaaaccctc cgacccaacc agagactccc acgtggcagt 120  
tctcgctttt cctttcggca ctcatgcagc tctctctctc accgtcacgc gccgcctcgc 180  
ctccgcctct ccttccaccg tcttctcttt ctccaacacc gcacaatcca actcttcggt 240  
atcttcctcc ggtgacgaag cagatcgctc ggcgaaacac agagtatacg atattgccga 300  
cgggtgttccg gagggatacg tgtttaacgg gagaacacag gaagcgatng aactgtttct 360  
tcaaactgcg ccgggagaaa ttccggagag aaatcgcgaa ngcggagacg gaggttggtg 420  
cggaagtga atgtttgatg actgatgcgt tcttctggtt cgcggctgat atggcgacgg 480  
aga 483

<210> 2607  
<211> 444  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-E5  
  
<400> 2607

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cttcttcgtc ttcccaattc tcttcgcggt cttgttctct ggacttctga ttccctctct 120  
cgccgataac cgccacgtta tcaacttcgg atcgccggga ctctaccggg agggactaac 180  
ctgggatcca agggaccagc attttctagt cggttctctc cacagccgca caattcattc 240  
cgtctccgac gctggagtca tcgaaacct aatctccgat ctgatctac cggagaactc 300  
cactatctct ggtctcgccg ttgactctac taatcgccgt ctcttgccct gtatccagag 360

tttgcgcct ctccctccct tcagtgcct aacctcctac gatctccgca gcggangccg 420  
tctgtaatcc tctctctct cccg 444

<210> 2608  
<211> 450  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-E8  
  
<400> 2608

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agtcacagcg gagggagctc atatcactgt ttcccagctc aaaaccttga tcgcggatca 120  
gcttcagatc cctctccata agcagacctt atccaccaat cgtgatctcc tcctcgccaa 180  
aactcccgt gatctactcg ccttcaccga cctcacggac ccaaactcc ccctctctc 240  
tctcaacctc ggccatggct ctatgctcta cctcgctac gatggcgagc gctccattcc 300  
tggagctcct cccgttactc ctgccggatt cttcggaag gaatatgaac gtcgatgact 360  
tgatngcccg ccaagatncg cgctactcgt cangagacgt ctactgcga ctccgtctcc 420  
tttcgattgc gatgccggcc aacgctttcc 450

<210> 2609  
<211> 462  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-E9  
  
<400> 2609

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tcaaccgcat gaccggttca ggcgaangat gctaccgaac catggtaaca gctgcagcca 120  
cagagaagac ttgctccttc gagtcaacgc gaaaaactgt actaaagttc caagaagtta 180  
gcccctgggc cacgtttgga cacgtggcgg caaacggagc aatcttgga gtagtagacg 240  
gagaggcaaa gatccacatc gttgacataa gctccacgtt ttgcactcaa tggccgactc 300  
ttctagaagc tttagccaca agatcagacg acacgcctca cctaaggcta accacagttg 360

tcgtggccaa caagtttgtc aacgatnaaa cggcgtcgca tcggatgatg aaagagattg 420  
gnaaccgaat ggagaaattc ctaggcttat gggaattncc tt 462

<210> 2610  
<211> 465  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-F10  
  
<400> 2610

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tttgccaat cgggtgcttct ccagatttcg cttatcttgt tcctatagca taacaatggc 120  
ggatttcaaa ccaaggatcg agatttcgtt ccttgaaacc ttcatttgca gcgcttttcgc 180  
tgcttgtttt gctgagttat gtactatacc gttggacaca gccaaagtta gacttcagct 240  
tcaaagaaag attccactg gagatgggtga gaatttgccc aagtatagag gatcaattgg 300  
tactctagct accatagcta gagaagaang tatttcaagt cnttggaaaa gtgttattgc 360  
angacttcat cgccaatgta tctaaggggg ctaangantg gggtatatga acccgtgaag 420  
acactttggg tggnaattac cttaattggc gaaaatccct taaaa 465

<210> 2611  
<211> 464  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-F12  
  
<400> 2611

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ggaagaagg gatacagctg ttgccacacc atacactgca gctgtgtag aatacagagt 120  
ttctattcac gactctgaag atgccaaatt caatgatata aacatggcaa atgggaatgg 180  
ttacactgtg tttgatgctc aacatcctta caaagcaa at gtcgctgtta aaaggagct 240  
tcatactccc gagtctgac gttcttgtat ccatttggaa tttgacattg ctggaagtgg 300  
acttacgtat gaaactggag atcatgttgg tgtactttgt gataacttaa gtgaaactgt 360

agatgaagct cttagattgc tggatatgtc acctgatact tattcccact tcacgctgaa 420  
aaagaagacg gacancaatc aacaactcaa tggctcctcc cttc 464

<210> 2612  
<211> 630  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-D4  
<400> 2612

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ggaaaccccc aaacggnccc ggttccccgg cccanttttt tttttttttt ttgttgggtt 120  
gttgccnaaa aaaacggttn ctntcctnc tctngtcct ncaattaaaa aatnctncaa 180  
agaagaaaag aaaaacaatn cgtccngggt tcaanggtcc gaaaagaaaa ngggaagaag 240  
aaaattgaag ttgggtccac gaattccgaa aataactttc tccaacgaac gaaagaaagg 300  
ggaagaagat tcctgaagc tcaaagggaa gaagcttaat tccaagtat aaggataaga 360  
gaaaagatgc agttaagaag gttattgagg cgatgactgt tggaaaggat gtttcatcac 420  
ttttcactga tgtagtcaat tgtatgcaaa cggaaaattt ggagttgaag aagcttggtt 480  
acttgatatc cataaaatta tgcgaaaagc caagccaaga tcttgctatt cttgcagtaa 540  
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<210> 2613  
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<212> DNA  
<213> Arabidopsis thaliana  
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agacgggacg gtatgtagga gattccgagt tacagcttga gaggggttaat gtatactaca 180



acgaggcgag ttgtggaang tacgttcctc gcgctgttct catggatttg gagcctggaa 240  
ccatggacag tgtcagatct ggtccgtacg gtcagatctt tccaccggat aacttcgtct 300  
tcggtcaatc cgggtgctggg aanaactggg cttaaaggta ctacactgaa ngtgccgaac 360  
cttattgaat ccggcccttg angttnttcn caaaaaaggc tnaaaaactg ttaanggcct 420  
caaagggttt taaggggtgc caatnccttt gggaaggagg aaantggg 468

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<212> DNA  
<213> Arabidopsis thaliana  
  
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ggaggaaaac tctctggaga taagcttacc agtacttatg accttggtga gcaaatgcag 180  
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tgtgaccctt atgttgaggt taagcttgga aactacaaag gcaccactag gcatttcgag 300  
aagaaatcta atcctgagtg gaaccaagtt ttgcctttt cttaaagatag gattcaagct 360  
tctttccttg aagctactgt caaggacaag gattttgtca aagatgattt gattgggtccg 420  
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<212> DNA  
<213> Arabidopsis thaliana  
  
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cttggaaga tcggcgagca ttatccaaag aaaagtgcga tcatatcttg cgcagaaaac 120  
ttttatccaa ctgcgtatct ctgctacaca aatccaagca gtttgtagag gttatcttgc 180

tagaagtata tacgaaggca tgcgcaggga agctgctgct ttgaaaatcc agagagactt 240  
gcgtaagttt ctggccagga aagcttacac tgagctatct tctgctacta ttttaattca 300  
agcgggtatg cgtgggtatgg tttcccgaag ggaattgtgt ctcagaaggc agactaaaac 360  
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<210> 2616  
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<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-C4

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ancaagcntn caaanacatn aganagttn cgnaccttgg nttacgaact tccttcccct 180  
aaaaacctca aaaccttggg aacacattca acacgcccat caacacacac gcgtaccgac 240  
aaaatgatgg taagacttcc aagtacctcc gggaacttat tggctcgtctt tggctctgaac 300  
agcaaagcca gtgtttgcag cgccgctgct gtgaaagtag ctatcccgag gctccgatgt 360  
aaccatagg tcaactcaag ggaattatgg ccgagcacga ttccaatgga gaaaccaatg 420  
ggtcctaagg angaaaccgg ttaactgtaa tgctgcntgg atgttagaan caaatgggtc 480  
ctaatgaatg cantttgg 498

<210> 2617  
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<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-C5

<400> 2617

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnactcat tttctccgca gagaaaatac 120

aatccatggc ttctactttt aggcctctcta ttagcttctc cactctcatc ctcttctctc 180  
 tgtgggtagt ggaggcacac acgtctagaa agttgatatc aatcaaggaa aaagaaggtc 240  
 aagatattag tcatttgctc aaagatgggtg aatttgatga cccttcgttg tacatgtatt 300  
 tcacactcaa tgatctcaaa ctangaacca aattgctgat ttacttctac aaaaacgatt 360  
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<210> 2618  
 <211> 450  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-C6

<400> 2618

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 tctctttctc tgtgtgtcgg tggctgcgat ggaggccagt gccggcttgg ttgctggatc 180  
 ctaccggaga aacgagctcg ttcggatccg acatgaatct gatggcgggt gcagaccaa 240  
 cttttgaaga atatgaaatg ggccagatat gtcagatctg tggatgatgat gttgggactc 300  
 gctgaaactg ggagatgtct ttgtcgcgtg taatgaatgg tgcttccct gtgtgtcggc 360  
 cttgctatga gtacgaaang aaagatggaa ctcaagtgtg ccctcaatgc aagactaaga 420  
 ttcagacgac acaaggggaa tcctcgtgtt 450

<210> 2619  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-C7

<400> 2619

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gtgatcctaa tatgggggttt aggccaatga tgaatgcacc aagaggaatg caaatgatgg 180  
 gaatgcatca tccaatgggg ataatgggta gaccaccacc atttcctttg cctttgccgt 240  
 tgctgtacc gtcgaatcag aagcttagaa gtgaggaaga ggatttgaaa gatgttgagg 300  
 ctcttttgag taagaagtct ttttaaggaga agcaacagtc taagacangt gangagttgc 360  
 ttgatctgat tcancgtcca accgctaaag aaaccgctac tgctgctaag tttaaaagca 420  
 aagganga 428

<210> 2620  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-C8  
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 ctcagttaaa gtttttctta ggtcagacca atggattcat tggaggaata cctaaatcgt 180  
 tggcgaattc accgagtttg aatctgctta acttgaggaa caattcttta tcgggtcggt 240  
 tgatgttgaa ttgtacggcg atgattgctt tgaactctct tgatttaggt accaatagat 300  
 tcaatgggag gttacctgag aatctaccgg attgcaagcg gttaaagaac gttaacctcg 360  
 cgaggaacac cttccatgga caagtaccan agagtttcaa gaacttcgag agcttatctt 420  
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<210> 2621  
 <211> 473  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-C9  
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ctcacatata tataatcata tatcatcgca aaatgtcttg cctagagatt tataacaaag 180  
acacgatgaa gaagaaagaa ggagaagaag aaacaagaga tgggacagtg gattactatg 240  
gtcgtccctc tattcgttct aactcaggcc aatgggttgc tggcatcgtc attcttctga 300  
accaggggct ggctacacta gccttctttg gagttggagt gaacttgggtg ctcttctctaa 360  
ctcgcgtttt gcagcagaac aacgcagacg cagctaacaa cgttagcaaa tggacangga 420  
ctgtttatat ccttctcaat ggntggagcg tttctcaagc gaatcgtant ggg 473

<210> 2622  
<211> 452  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-D1  
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cgttacacga gatctcaccg ccgtcggatc tccggagaat gctcctgcga aaggacgtgc 180  
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tctcaaagga gctttcaaaa tcgtcgaagg tcccgcctagt tccgccgccg ggaatccaga 300  
tgagatagcg aagttgtttc cgggtctata tggccagcca tcagtagcag tggttccaag 360  
atnaggatgc accttcgtcg gcaccgaaat tgaagattgg tgttggtttg tctggangtc 420  
angcacctgg tgggcacaat gttatttctg ga 452

<210> 2623  
<211> 456  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E2-D10  
<400> 2623

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aaacggttac ttacgccgtg aggttgcccta acgggaaggc gaaaggatct ctcaaattct 180  
 cgttcaaatt tggggaaaag tatacttatg gatcttcgag tggtcctcac gcgccggtcc 240  
 cttcggctat ggatcataag actatggatc agcccgtcac cgcttaccg cccggacacg 300  
 gtgcaccgtc tgcataccct gtcctcccg cgggtccttc ttccggatat ccaccacaag 360  
 gacatgacna taancacgat ggtgtttaag gatacccgca acangctgga tatccaactg 420  
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<210> 2624  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tgactcccta aaaggatttg gcatattcgc ttccacctcc actcaagctt ccgatgaagt 180  
 tttgcttggt gttccgcttg atctggccat taccctatg agagttcttc aggacctct 240  
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 gattctgttc ctacttttg agcgtcttcg tatcaattct tcttgaagc cgtatcttga 360  
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<210> 2625  
 <211> 480  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E2-D3  
 <400> 2625

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cagtttgccc aattcggagc tggatgtttc tgggggtgtcg agctggcgtt tcagagagtc 180  
 ccaggggtga ctcagaccga ggctggatac acccaaggga ccgtagacaa tccttcatac 240  
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 aacgattgca cctatgagtc tctgcttgat ttgttctggt ctaagcatga tcccaccact 360  
 ttgaatcgcc agggaaatga cgtgggaacc caatacagat ctggaatata cttctacaca 420  
 cccgagcaag agaaactagc ccgtgagtca cttgaacgtc ancaacaaca aatggagaaa 480

<210> 2626  
 <211> 448  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 gatggattgg cctcacgctc tgctgagtac tacaagcaag gcgctcgttt tgccaagtgg 180  
 aggacagtgg tgagtgttcc ctgcggtcct tcagcactgg ctgtnaagga agctgccttg 240  
 gggctggctc gctatgcaac catctctcaa gataatggtc ctgtcccaa ttgtggancc 300  
 aaaagattcc ttctgggacn gggaacaacc aatananaag actctggaag gtggcaaana 360  
 aagtgttgtc aaaagtgttc ctccnacttg gcaaaagaac aacgtcatgt tttgaaggga 420  
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<210> 2627  
 <211> 443  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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ctataattgt nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nncgatactg 180  
cgccgcgaaa ccttccggtg atggaacgac gtcggacggg aacaaaaaag atgtggagga 240  
agagaggaag gacggtgaag gaaagagggg agatagaaaa cgttggaataa aattttatcc 300  
naatcgtaa tgggaagcct tttgctccgg tttcaatggg anggaagccg aatgggctgc 360  
ttataagggg agcaaggcgg gagattctga acaaagccgc ctgaaaattt tatcgggatac 420  
tgggtgggaa agcggatgatg att 443

<210> 2628  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 2628

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agcaggagga taacatcgta ttccgtgact accgggctga ggtacccaaa ggaagtacag 180  
agacattctt ccgtaaagtc aagttctgga aggaggatgg caatgcagag gcgccaccta 240  
tctttaatgt cgatggcgtg aactacttcc atgtcaaggt tgttggtcta tattttgttg 300  
cgacaacgag agttaacgtg tcaacctctc ctgttttgga gcttctacaa aggantgctc 360  
gtgttaataa agattancct ggggggtcng aatgaanatt caatcaagga aaaaactttg 420  
ggcccn 426

<210> 2629  
<211> 505  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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ggaggagctg cgttcgccgt cggagcttct ttccttcac ttttccttaa aggtgagctt 180  
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 atagccaaca aaggactcct gttaccccc ttcattgaaag aatgacaatg gggaaagccg 420  
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<210> 2630  
 <211> 518  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E1-A2  
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<210> 2631  
 <211> 529  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 cgatccaacg actagagtct cgtttccgcg aaatggatca gtttggtccc tccacaccaa 240  
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 taataacggc ggcggaaacg gaaagcggag gaagaagtgg tgggtttgga nggtcaaggg 360  
 ggggtgaagca aagtnaaaga atccatcctc caatggggaa caantanggg ttaatcaacc 420  
 aaagggatgg gggatttang angtttgcaa cctgattcct caatttccct ttttaaaggg 480  
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<210> 2632  
 <211> 561  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E1-A5  
 <400> 2632

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 aacggaaaga gtgcgacagg taacagtatc cttgggagga aagcttttag gtcaagagct 240  
 agaactgtag gagtgacaag cacgtgcgag tcacagagag ttgttcaaga agatggtgat 300  
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 taatccggca antangatcc ctgactaata tgattngttg gtttttaccg gtggcnaaan 540  
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<210> 2633  
 <211> 504  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-033-Q1-E1-A6

<400> 2633

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gctgctatcc aagctttgat atcatttcga aagctgtatc ctgctcatcg aancaaggaa 180  
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<210> 2634

<211> 564

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-033-Q1-E1-B1

<400> 2634

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aaatggcggc tttattagct tctcagagct gctgctatgg cgggtgagacc gcaagagtca 240  
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gttatggcag caagtctaag agatttcgta ttgagatgag acagtcggaa ttgccctcta 360  
aggttggaat caatggacgt tcagtcaaaa tggttcctgc gagtgangtg gtgaaganga 420  
aagatggtgt gaatggatcg gctggggaaa aggtgttaat ggancaagtt tgggtantan 480  
taagaaacat taaaggggtgc cggcgtcaac tttgggttaa ggnancaaan gaaaacaaca 540

agaatccgta ccttccccca accg

564

<210> 2635  
<211> 528  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E1-B3  
  
<400> 2635

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aaaatctttt taatgaaaaa agagcagaca ggacgagaat tcgcttttct gaatccttta 120  
gagtattgtt ttctccgtcg aattcgcgatg aacacttgag ctcaacaaga cggcgtggaa 180  
gtggacggtg aggtagtttt ttttagtttt tgaaagacat ggcgcaaac ggtacttgg 240  
ttccagcggg tccttcggcg gttgtgacgg tgaagaagaa aacgccacaa gcgtcgtggg 300  
ctcttattga cgcgacggga cagagtgagc cactcgatgt tgataagtat gagatnatgc 360  
accgtgtcca agattcacgc tcgcgatccc cggattctag accccaattt aacntaacc 420  
cttncaacta atccttgggc cganaagaaa agccaattgg ttcccaaant ttgggnncat 480  
aatccaaagg gctaattaan caactttncg gaaaaaaggg tttttgcc 528

<210> 2636  
<211> 526  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-033-Q1-E1-B4  
  
<400> 2636

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnttatg acgtattcgt 180  
cgtctctttc ggtgcctcct tctgctcctc agtctcctaa ttactccggt ggtctccgat 240  
cacagtcttc tgtcttcggt gagcaagaga agtatctttc agagttactt gcagagcgtc 300  
ataagcttac tccattcctg cctgtgcttc cacatgcatt tcggctacta aaaccaaaga 360

aattttgccc tgtaaccaac actgttggga gaaatgctaa caagttttta agtcaaaaat 420  
 tgggccttta accaacccta acccctcctg gncttctggg agggaaaatt tcanaaangg 480  
 caagaanctn ganataaatg gaatggggcc tcccaanttt ccaaca 526

<210> 2637  
 <211> 534  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E1-B5  
 <400> 2637

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 ttgcttcgtg tgcatcgcg agaacaaggg aaaattaggg tttatatcct caagcttttt 120  
 cgaacaccat tgatcgttga tctaagattt ttcttctagt cgagtttctt aaggggcttt 180  
 gatcaaactc aaaattgaag accaatactt tgaaggattc tggtaaagct aagcaactat 240  
 gagttcaaat tcatgggctg atgtttctga atcagagagg gcaccatctg gtgggtggtg 300  
 gggttattct cgtccgtctc gaaccaacta tgttcctcca catcttagga gccgtacacc 360  
 atcttcggag tttgttgctc cttcacctgg taataatgat cgtgggggat atgggtggtgc 420  
 aaatagtggg ttatgggtgg tctgangcaa aggttatggg tgggccgaag gttccgggct 480  
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<210> 2638  
 <211> 510  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-033-Q1-E1-B6  
 <400> 2638

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 ttctagaaga ttacaaattc ttggatctgt gattcttctg ctctctattc atgtcgtc 180  
 ctctttttac cttcctggtg ttgctcctca ggatttcgaa aaggggagatg aattgaaagt 240

gaaagtaaac aagttgacat ctataaagac tcagcttcca tattcgtatt actctcttcc 300  
 tttttgtcgt cctaagaaga ttgtggacag tactgagaat ccttgggtga agttcttcgt 360  
 ggtgaccgan tcnaaaaaatg ctcccttaatt ccgttttaaaa tgcttgaggc gcaaagtgtg 420  
 aangttcncg gtcgtgttat gcctgatgca aagtctggcc aaagggttaa agagaanatg 480  
 gagatgantt tcgagttaac agatccttgn 510

<210> 2639  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-032-Q1-E1-H3  
 <400> 2639

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 aagcgccgga gaaatctgac ttaccgccga gatgtagttt gctcagccgt tacttgaagg 180  
 agaagggtag tttcggaaac attgatcttg gcttataccg aaaacccgat tccagtctcg 240  
 cggtgccccg aaaattcgat ccaccaggta cttttattat ctctttcttc tttcatggcc 300  
 gccacttggt aatagtactt taaaaactca gttctgttac tacttgcttt tgccagattt 360  
 actacttttg tattgtttcc tcaattgtaa gtcaattccc tacttcaaaa ataaattccc 420  
 ctgng 425

<210> 2640  
 <211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-032-Q1-E1-F1  
 <400> 2640

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 gagataatga agcgggttaag gtggatttcg atgacaagct tagttgggag tatctattca 120  
 aggtatattg gctttgcctg aaggaagagc tgtctctaac tgttgatgag cttactagag 180

caaataatcc ttggaaggag gttcctaaca ctgctcccaa agtggagtca caaatgatc 240  
 ataccaataa cagagcttta gatgtagcag taaatggaac aaaaagaaga aggaccagtg 300  
 attcccctac cttaccaaac aagttggatg gcaaaaatcc aagtaatatc ctaaagaagg 360  
 ctctggaga tacgaactgg gcaacaaaaa gaactcctcn agtttgtgt 409

<210> 2641  
 <211> 432  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-032-Q1-E1-F10  
 <400> 2641

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 tctccggtgg tgagcaaaga tggtgtgggt cgacaagtac aggccgaaat cactcgacaa 120  
 ggcatagtt catgaagata tcgccccaaa actcaagaaa ttggtttccg agcaagattg 180  
 tccacatttg ctcttttatg ggccgtcagg ttctggtaag aaaaccctaa ttatggctct 240  
 tctcaagcag atatatgggg ccagtgcaga gaaggtgaaa gtggagaaca gggcatggaa 300  
 agttgatgct gggagttaga actattgatc tggagctcac tacattatca agcacaatca 360  
 gtggaactta cccaagttga tccaggcttt caggacagta taatggtcag gagataatta 420  
 aaggaatggg ca 432

<210> 2642  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-032-Q1-E1-F11  
 <400> 2642

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 gatgccagca acggaatatc aaagatcatt cgggaggtct tttctgaatt tacggcgaga 120  
 cacggcggtg aactcggttg agtcaacgac ggttaccccc gagttgactc agatggaagc 180  
 agagcttggt tcgtttcaga gaaaagttgc tgagaggttt atcgatctca atgcgtctag 240  
 ttgtgaagat ctactgtctc tcgaatgggt tgggaagctt cttgattcgt ttctatcttg 300

tcaagaagag tttcgttcca tagtcatcaa tcatcgttcg atgattacta aaccaccgat 360  
ggatcgattg gttcagatta cttcgagaga agtggttaaag ctcttgatgt tgtaacgccca 420  
atcgtgatgg 430

<210> 2643  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-F3  
<400> 2643

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ttcgggtcttc ttcaattttc accgacacaa acccgtcttt tctctttctc tctcatttct 120  
atcaattttt ctctacaatt ccccgatcgt cgaagaagct acagcttgca atttgctcgt 180  
gttctcttcc atcattcctt tggttaagagc ctcttcattg ctctacggg tgattccaat 240  
ttcttctcat ccgtcccagc tcttcacagt aacctcggac ttttgtctcc tgatcagatc 300  
gaactggcga agatcttatt agaaaatggg cagagtcatc tcttccaaca atgggcctga 360  
actcgggtgtt gatgataaag agaagctagc ttttttcgat nagattgctc gctaaaatca 420  
agct 424

<210> 2644  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-F4  
<400> 2644

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tgtgattgtg attgtgattg tgattgtgat tgtgaggga ttatgggtca agccgtagaa 120  
gagtgggtaca agcagatgcc gattataacc cggctgtatc tcacggcggc tgtagtcacc 180  
accgtcgggt gttcgtctga gattatatct ccttataatc tctacctaaa tctaccctt 240  
gtgggtgaagc aataccagtt ctggcgtctt gtcacaaatt tcttttattt ccgaaagatg 300



gatttggact ttttgttcca tatgtttttt ctagctcgat actgcaaact gctcgaanaa 360  
aactccttca aggggaaaga ccgcngattt cccttanatg cccctaatacg ggggaant 418

<210> 2645  
<211> 428  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-F9  
  
<400> 2645

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acgacctttt atccttcacc agcaatccat ctacggcgtc gtctccagtc actgtatctg 120  
actatctcga caactttctc ggcgaaccca cttctcgctc cggtagtttt caaagcgaga 180  
gcttactcgg tggaggcggg ggagaaagca tcaacgacgc tgattttgga ttcgctcgtc 240  
ctgatttccg atcggaaaca ctagctggaa ccgtacagtt ttacgagagg catgtcttct 300  
tgtgctacaa aaagccatct gtttggccgc aaggatcgag gctgctgagt tcgattgatt 360  
gcctangcta ctctctgctg ctgtatcggg caaaaagggt aacatgaaga angagactcg 420  
actcacao 428

<210> 2646  
<211> 425  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-G10  
  
<400> 2646

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atcaaagcaa tggagcagaa cttgatgatt acacacagtt tgggtgtaaatt ttgcagactg 120  
atcaagagga tacctttcca gattttgtgt catatggtgt gaatttgcag caggagccag 180  
atgaagtctt tagtattgga gcttctcaat tggatttgct ctcgtataat ggagttttgt 240  
cgctagagcc agaacagggt gggcaacaag attgnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnca 360

ttgctccaga aagcgggcaa ggactggntc ntgtancaga ggaggaggaa ctaaantctgt 420  
cgtga 425

<210> 2647  
<211> 229  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-G3  
  
<400> 2647

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ctcagtgatg ggaagttttg taggtttgtg tggttttaac ttaatgataa ggtgtttgtt 120  
tgtagtagta gtctccatgt aactanatgg gggaaaagta tgtgtgactt taagtttctt 180  
aaaagctcaa agaaacttta ncccttaaaa aaaannanaa aaaagggcg 229

<210> 2648  
<211> 423  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-G5  
  
<400> 2648

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gggagtcaac ggtgatctag tcaccatatt atggatggcg tcgaaggag ctaaccaaac 120  
ggagcactat ctcaaagaag aagtaggagg aaccgttttt ttcgccttcc gagcatcttt 180  
ctcgtcggaa gatttgttcg ctacggagaa tacatctccc tttggagaaa taaagatgaa 240  
ncgtaatcaa tttccttgta tgagaagcat cggcaacgac gttgacacta ctgttaacga 300  
agctttcttc aagtcacttg aagttctcat tggccaaga acctcatttc atgcttctgt 360  
gcaaaacgcg gttgatagaa aacaacaagt tgtgttcaca aggacattcc ttccgaggcg 420  
caa 423

<210> 2649  
<211> 468  
<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-032-Q1-E1-G6

<400> 2649

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acttcaccgt gaagaagctg atcaagaaga ggaaaggact gacgccgcgc gagaagacgg 120  
cgcttcatga ctgtttggag actattgatg agacgctgga cgagctccat gaaacggtgg 180  
aagatctcca tttgtatcca accaaaaaaaa ctctccggga acacgccgga gatctcaaaa 240  
cactaattag ctccgccatt accaaccagg agacttgtct cgacggcttc tctcatgacg 300  
acgccgataa gcaagttcgt aaagccttgt tgaaggggca gatacacgta gagcacatgt 360  
gcagcaacgc tctagcaatg atcaagaaca tgactgatac tgacatagcc aacttcgagc 420  
aaaaagctaa aataacctca aacaancgtt agctcaaggn ggagaatc 468

<210> 2650

<211> 415

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-032-Q1-E1-G7

<400> 2650

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gacagtctac tgagtggaca atacaagttg atccgaaatt ccatgaaggt gcaagtaatt 120  
taaaggaact tgtccctttc gaggaatgtc ttgagttgca ctccacagat gaaggagttg 180  
tacgggttcc tgactatctc cttctcacta ataatggacg tggcttcaac gttgttgtgg 240  
atcccacaaa tcttggggat ggtgtgcatt actttgaagt ttatgggatt gattgcaaag 300  
caccagancg tggccccctt ttcagaatcc canthacaat aataattccc aaagactgtt 360  
ggcaaatcaa cctccagtta attcaatttc ancaaatgtc ttcactctcaa ggcan 415

<210> 2651

<211> 475

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-032-Q1-E1-G8

<400> 2651

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 gaaaaattcc caatgtccgc tttatctttc attctcgatt agaattcttc aaccaaaggt 180  
 cactctctct ccgttccatt gcttctggat ttcgttttta agggttttac atttttctg 240  
 ccttctttta cccatcagag gaagtttcaa gccattttgt taatcagctc tctcataagc 300  
 taagatgtcg tcatcgccct ttccagtctt ggacaaccga ccaattgata agtggaaggt 360  
 tacggaattg aaagaagagc ttaaaagacg gagactaaca acaagaggct tgaagggagg 420  
 aattggttag gcgtcttgat gaagcacttc gtgctgagca agaagaatct gaaan 475

<210> 2652  
 <211> 436  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-032-Q1-E1-G9

<400> 2652

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 acacttcttt tctcactttg gatcactgag taactctcac atgttgtaca ggaaccgctt 180  
 ggagggggccc atgccgatcc ttcattggacg tcgcagcaaa taaagattgc tatcaatgaa 240  
 aacatgaatg taggcatagt tggtcttctc aacgctggat gtggatctaa aagagttcta 300  
 actttttttt gggaacttgt aggaattcgg aaaaatgagt ggggaggagc tcctgaaaca 360  
 caggatggct aaagtaccga aagattggag tgttcataga nggcgaanca atnagagcca 420  
 agttaggaaa atcaac 436

<210> 2653  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-H11

<400> 2653

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attttagcca naagtatagg atctcctcag cctttacttg angcanagat caaggaacct 180  
canaancttc aagtccttga ttccaaagat gtttccagaa gaaacactat gctgtatcta 240  
gctgctggat ttcttgagg gatcaacttt ctcaatgggtg aagccgcaga agctcgagta 300  
gggagaaagg gagancagaa nganagcatt ggagaagctg atggccaaag ctaaagagtc 360  
anagcccaac aacaagtcag gtanccaaaa agatagagaa agagttagag aaagaagaan 420  
tgtttctctt acttcct 437

<210> 2654  
<211> 472  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-H2

<400> 2654

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agagaaggca tggccgcgga agaagcgacg gagttctacc tgagatacta tgtcgggtcac 120  
aaagggaaat ttggacacga gttcctggag ttcgagtta gagaggacgg taagctccgt 180  
tacgccaata actctaacta caagaacgat actattatcc gcaaggaggt atttctcacc 240  
cccgccgtgc tcaaggaatg caagcgtatc gtctccgaga gcgagattct gaaagaagac 300  
gataacaatt ggccggaacc tgaccgtgtt ggaaagcaag agctcgagat cgtcttgggt 360  
aatgagcata tctcattcgc tacatctaag attgggatct cntgttgatt gccaaagcag 420  
taatgattct gaaaggactt cgcacccntc naataaccct gtaaggngc tt 472

<210> 2655  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-E7

<400> 2655

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ctttatctga atttgaccat tttctcttca tttctccgac taatttccct tcatttcgat 120  
ctttaagcat ctgggtatct ccctttctcc atctattcat cggaatttgc gcttagattt 180  
tgaatatttt gaagcttttt ttgggataga ggagattgaa aatggggaaa tctggaggaa 240  
ggaagaagaa gagtgggtgt tcgaattcga attcgagtca agtcaattca tctgaaactt 300  
caggattatc caaacctgca acgattgtta atgggtgtgt tgattcgtgc ttcgatattc 360  
ctgaaacgtg cacatgagct taagggaaga aggnaataaa aaagttcaaa gcaag 415

<210> 2656  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-D10

<400> 2656

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ggacattctc atttttatga ccgggcaaga tgagattgag gcagcgtgct tttcactaaa 120  
ggagagaatg gaacagctcg tatcatcttc cagtagagaa ataacgaacc tactcattct 180  
cccaatatac tctcagttac ctgctgactt gcaagcaaag atattccaga aaccagaaga 240  
tggagcccgt aaatgcattg ttgccaccaa tattgctgaa acatcattga cagtcgatgg 300  
aatatattat gtgattgaca ctgggtatgg gaaagatgaa gggtttcaat ccctaagaat 360  
ggggtangga tgccccttca aagttttccc cataaagtcc gtgcaancct cctgatta 418

<210> 2657  
<211> 434  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-D11

<400> 2657

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gttctcactc ctaatctatt tatctcttcc ttattcaatc acagctgggtg aaaacaacct 180  
cctccaccaa tctccaaccg ctagatcacg acgtcccatg gtgttcccat tgttctctc 240  
tcaaccaaat tcttcttcga gatccatata aatcccacat cgaaaactcc acaaatccga 300  
ctcaaaatca cttctcact ctgcgatgag actctacgac gatcttctta ttaatgggggt 360  
attacactac gaggtcttgg attgggtaca caacacaaat gtttgctcnt aaagttgatt 420  
ctggtaagta ctgg 434

<210> 2658  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-D2

<400> 2658

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aggattcagt gacccagtct atgctgaagc atatgtgacg gtacaccatt atgatattgc 120  
tcttgaagtt acagtaatca accgaaccaa ggaaaccctt cagaacttgt gcttggagtt 180  
agcaaccatg ggtgatctca aacttggtga gcgtcctcag aactacagtc tggcacctga 240  
aagaagcatg cagattaaag caaacatcaa ggtgtcgtcc acagagacgg gagtcatatt 300  
cggaacatc gtctatgaga catcaaattg aatggagcga aacgtcgttg ttcttaatga 360  
catacacatt gatatcatgg gactatatct cccctgctgt gtgttcaaaa ggtgcttnaa 420  
aaaa 424

<210> 2659  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-D7

<400> 2659

gccacgcgt ccggccggaa agggaaaacc ggttgatttc gtgttatgta ttggagatga 60  
 cagatctgat gaagacatgt ttgaagcgat tggtaatgcg atgtcgaaaa ggttactctg 120  
 tgataatgct ctagtctttg catgcacagt tgggcaaaag ccaagcaagg ctaaatacta 180  
 cttggacgat actactgaag tgacatgcat gcttgaatct ctagctgaag catcagaggc 240  
 ttcaaacttt tctatgcgtg aacttgatga agccctttga tttggaacca gatcttttgc 300  
 cagatggcta aagaagaggt tagacagaca aagacaagga atagaaagag actgggggaat 360  
 tttgttggtc tgtatgtgtt tgtcagattt gaaaagaaag aaaagaanaa a 411

<210> 2660  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-032-Q1-E1-D8

<400> 2660

gcttcttttg atgttcttgt agcgtctgta cgaaatctca caaggtttct tcttctcaga 60  
 tttagaaata cttgtgtgat atcttctgag taaccaaatt cttgataaag tttctagctt 120  
 tattcaaacc catttgaaaa atccggtggt gaatcgccgg agaaatgtgt ttttcgtttc 180  
 tccactgagt tttttttgtt aagaaatctg ttaaaactct agatttcaa cgaatgacat 240  
 tttctgagat tgaggaacat tgtgaatcga ggactggagt gaagattctc tgatgagtga 300  
 ttcnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360  
 nnnnnnnnnn nnnnnnnntc tgcgtttcgg tgaagaagta n 401

<210> 2661  
 <211> 439  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-032-Q1-E1-D9

<400> 2661

gctcatgtca ctgatcgtct cggaggagaa gaagtgtgga ggttgaagaa gggagaaaat 60  
 gagcggtcac gattctaaat atttttcgac tacgaagaag ggagagatcc ctgagctcaa 120



ggaagagctg aattcacagt acaaggataa gaggaagat gctgttaaga aggttattgc 180  
 ggcaatgact gttggaaagg atgtttcatc acttttcact gatgtagtca attgcatgca 240  
 aactgagaat ctggagttga agaagcttgt ttacttgtat ctgataaact atgcaaaaag 300  
 ccagccagat cttgctatcc tcgctgtaaa tacttttggt aaggattcac aagacccaaa 360  
 tccattgatc cgggctttgg ctgttccgaa catgggctgt atccgtgttg ataagattac 420  
 agaataattg gggatgatcc 439

<210> 2662  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-032-Q1-E1-E1

<400> 2662

gngcagcagc ttacgaccac tgaccctttt gcttttgatt caatcgatag acgacggata 60  
 caagttctcg ctatcgccga gccggagccg gagtctgagc tgaagccctg tatctgtaac 120  
 tcttccaaca gtggacatac cttgagagat gaagatcggt cgcagggatt ttgttcgtaa 180  
 tggacccgga agcgtaaga tgggtggcaga ggactctgat gatctctggt atgcttataa 240  
 cttgattgct gtgggcgata gtgtaatggc tgtcactttc agaaaagttc agagagagat 300  
 acctggtggg ggaagagact ctgaacgtgt taaactgaag ctggaagtac aagttgagga 360  
 agtggactat gacaaanacg gatntgtttt ggcatacgt ggnaaaaata acctg 415

<210> 2663  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-032-Q1-E1-E10

<400> 2663

gcccacgcgt ccgaaaaaaa aaaacagatt cctgatattt tctgcttcgc ttcgctttgc 60  
 tttggccttt gggtttgctt tgccttttat ctccacaata ataatttcg ttaacctctc 120  
 ctogttctcg tcgctgtttc ttcccgatct ttgctatagt tctggattca aaatctttct 180

tccccaatag atgtttgtct ctttaattttt gattttttctg caaaatcaaa tttttaagag 240  
ctatggagga agagaatggt actagttcac cttcaacacc ggtacatagg cttaggcatc 300  
gaagacgttc taatgaggtt gttacggatg gggataaagt gaaatgcaag ttcctttgtt 360  
ggntaatgat cnggaataag tacaaatcct tcaatgggcc gggactacnc caacggtaan 420  
ggatgaattg gggggttt 438

<210> 2664  
<211> 440  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-E11

<400> 2664

gaatagacaa agaaaacaac atggctgatt ctaagatgaa gctccactgt ggctttatct 60  
ggggtaattc ggcagctctc ttttgatca atgagaaagg tcttgacttt gagcttgtct 120  
tcgtagattg gcttgctggt gaagccaaaa ccaaaacttt tctctctact ctcaacccat 180  
ttggtgaagt cccggttctt gaagatggag atctcaaact tttcgaacca aaggcgatca 240  
cgcgatacct agccgagcaa tacaaagacg ttggaacaaa tctattacca gatgatccca 300  
aaaagagagc aatcatgtcg atgtggatgg aagtagatag caatcaattt cttcccatan 360  
catcaacact catcaaagaa ctcatcatca atccatatca aaggttaacc acagacgata 420  
caacaagttc aaggaagaac 440

<210> 2665  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-032-Q1-E1-E12

<400> 2665

cggggaattt gagtatcgtg agaagcctga cacatgttgc cctaaatgca gtgagccaca 60  
gacctctgat atgtccacaa gtccaaatga gcttatatta cttgtaaggt ttgtgcaaac 120  
acttctatca gaccgatcgt cggaaagaaa aagtaactta gagtctggca atgataagct 180

gttgacgaaa ctgaaagctg atgatgatca atggagacat gtcataaggaa cgatcataga 240  
 tggcagtgc tcatcaacaa gtacagttga ttggcttcta caggaactgc ttaaagacaa 300  
 gctggatata tggctgtctt caagatcatg tgatgaagat tacataacgt gttctttgtc 360  
 aaagcangaa caaggtatta tccatatggg tgcaaggctt ggcttcgaat gggcatttta 420  
 t 421

<210> 2666  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-032-Q1-E1-E2

<400> 2666

tttctctctc atatctctca ctcacacttt ttctctatat cttctctca acttgatata 60  
 ggggtgaagcc gtagaggtca tgttcggaaa tgggttcccg gagattcaca aagccacatc 120  
 acccactcaa accctccact ctaaccagca agactgccat tggatatgaag aaaccatcga 180  
 tgatgatctc aagtgggtctt ttgccctcaa cagtgttctc catcaaggaa ctagttagta 240  
 ccaagatatt gctctgttgg acaccaaacg ttttggaaag gtgcttgtga ttgatgggaa 300  
 aatgcaaagt gctgagagag atgagtttat ctaccaatga atgtttgatt caaccgcgtc 360  
 tcctttttcca atccaaagtt atgcacttaa ttacntcac ttacaaataa aatttttg 418

<210> 2667  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-032-Q1-E1-E3

<400> 2667

ggggatttct tctgggatga tgagtctcga cctaaatggg atttcatgct tgccaacttc 60  
 aaaacgttgg aggaggacac tcagacagga acaatgattg ttcagtggag aaaaaagttt 120  
 cctttttttc tgtagtgacc gagagtatat cattggccgg agaatatggg agtctgggaa 180  
 gaagtattat tgtgtcacia agggagttcc ttatccagct ctaccaaagc gtgataagcc 240

aaggcgtgtt gagctttatt tctcaagttg ggttatcana ncggttgaat cccgaaaagg 300  
 agatggacag caaacggctt gtgaagtttc ccttgtccac tacgaaagac atggggcatc 360  
 ccaaaagacg tagcaanagt taggtgtccg tcatggcatg tngggaactg tcaanaagct 420  
 aaactccg 428

<210> 2668  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-032-Q1-E1-E4  
 <400> 2668

ccgagaattt gcaagagttc caagactgga atgagtatta ttcctgtgat gcaaaatata 60  
 gcaactggct caaattccag ttagagaatg ctgaagtcac tgaactgtca gaagaggaaa 120  
 atcagaaagc tggtgtagca gccaaagaga ctctggattc ttctttgtca ttgcttctca 180  
 gacaagacaa cccctggatg acatttctcg aagaccatgt attcgaatca gaagaatatt 240  
 tattccttga attgcatgca actgcatgac tctgtttgcc ttctgggtgaa tgtctgcgcc 300  
 cagatgccac tggtttgtgt gcactaatga gtgcacttta ctcttctgtc agtgaggaag 360  
 ttgttttaga tcccagttaa tgggtaaatg tatccatttc gtcaaaggga na 412

<210> 2669  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-032-Q1-E1-E5  
 <400> 2669

ttcttgaata aaatcagaat tacaacaaa aatgggtttg caaaagcttc ctctcattgg 60  
 gctgcttttg ctctgacca tegtgcctc tccancaa atgcagatggac ctgtttgccc 120  
 gccgtcgaac aaactaagcc gggcaagttt cctgaaggt tttttatttg gcacggctac 180  
 tgccgcatat caggtcaaan gtgcgattaa tgaaacttgt cgtggaccag ccttatggga 240  
 catctactgt agaanatata cagagangtg caataacnat aacggcgatg tggccgttga 300

atttttccaa cgttataang aanatatcca actaatgaaa aatccaaaac acangacgcc 360  
 cttanaaatg tctaatacgca agggccaaag aataatttcc tcaatgggaa aaaaagggga 420  
 aaang 425

<210> 2670  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-032-Q1-E1-E6  
 <400> 2670

ataatttgtt gacgaccaa agtaattaaa cacattacac atggggaaaa agaacggctc 60  
 ttctttcttg ctcaccgctg taaagcgagc tttccgatct ccgacgaaga aagatcatag 120  
 taatgacgtc gaagaagatg aagaaaagaa gagagagaag agacggtggt ttagaaaacc 180  
 ggcgactcaa gaatctccgg tgaagtcttc cggatctctt ccaccagcac ctcaggaaga 240  
 ttcacttaac gtaaactcaa aaccctctcc ggagacagca ccgagttacg caactacgac 300  
 gccgccatcc aacgccggta aacccccgtc cgcgtagtc cccatcgcca cgtcagcatc 360  
 taagacactc gcaccgancg gggtttattac gcaagagaaa attacgctgn t 411

<210> 2671  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-032-Q1-E1-D1  
 <400> 2671

gcaaaacaca tactaattgt ttctccttct ccttcttctt tgcaaattgga tacttttagct 60  
 tcaaactctt cggatctcac gaccaagtca agtctcggaa tgctcgtcgtt taccaacatg 120  
 tatctcctca caacgcttca agcccttgcy gccctttgct tcttgatgat tctcaacaaa 180  
 ataaagtcac cttcacgaaa caagaagttg catcctctcc cgccaggacc caccggtttt 240  
 ccaattgttg gaatgattcc ggcgatgctt aaaaaccgtc cagttttccg gtggctccac 300  
 agcctcatga aggagcttaa cacggagata gcttggtgtg gtctaagaaa cactcacgtg 360

attcctgtga catgtcctaa gattgcacgt gagatnntca agcaacaaga cgcatecttg 420  
 ggtn 424

<210> 2672  
 <211> 496  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-G6

<400> 2672

atcttctnng tgggtccgta ccgnnctgga aattantnng nccggtcgac gagactcant 60  
 agtcggcggc cgcccttttt tttttttttt ggagttagaa tgctatgaat tccaaaccag 120  
 agaagattca aataaaacag agactaaaaa ggctgttcaa acagtagtaa ttcttgcaca 180  
 tgaacactaa accagaacga taacaggaaa caaagataca gtcagtactc agtagtttga 240  
 gggcacctac ggaaagcaag taatactaca gagggtagac gttccagtgc ttaatgatga 300  
 aacatcatca gtacaagcaa acgtgttttt catcatacac cgtatcactt tcacaagtgg 360  
 ctgcagtcac tccgcaacat aanggagatt gacntcgaga agcagcatca actttgcgca 420  
 aagggacaag ggtaccaaga gatggggaac tcncattgna annccittca ngggaaatcc 480  
 ccttaaaang gggagg 496

<210> 2673  
 <211> 532  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-H10

<400> 2673

nctgggtttac tgggtctctac cggncctgga aatcccgaag tcgacccacg ngnccgattg 60  
 cctgatttct tcttgggaga tcagttaact agccagggtc aagcgattcg aagcatcgag 120  
 ttctatatat gttactatgg ttggggagac ttcagacaca gaaaaagcac ttgcaaagaa 180  
 tctgatgtct acaacacttt cttcttcatt gttgctgtca tcccttatgt ctctcgccctc 240  
 cttcagtgcc tgcgacggct gtttgaggaa aaaaaccggg aacaagggtg caacgggactc 300

aagtatttct tgactatagt ggcggtttgc ttgagaacgg cttacagtat ccaaaaaggt 360  
 caagtcgctt gggaggggtt taactggctg tcttcccaat tatagctgca atattcctgg 420  
 tcttactggg gacttgtcca aggattgggg gccttcnaaa ccgggcatcc aaaaaccgtg 480  
 cttcnaagat aaactccctg gtcctcaaaa gaaagtntac ctcaaagcga tg 532

<210> 2674  
 <211> 527  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-H11  
 <400> 2674

gaactgggtt gctgttccc tacggccccg ganatcccga ngtcgacca cgcgtccgga 60  
 tnaatcgact tgattttctc aaactgggtg ctcatgtatc tctctgataa agaggtggaa 120  
 ctaatggcag agagaatgat tggatgggtc aagccagggg gatacathtt cttcagagaa 180  
 tcttgettcc atcaatctgg ggacagcaag cgaaagtcaa accccactca ctaccgtgaa 240  
 cccagattct acacaaaggt tttccaggaa tgtcagacac gtgatgcttc tggc 300  
 tttgagctt ctatgggttg ctgcaaagtc attgggggtt atgtgaagaa caagaagaat 360  
 cagnatcaga tttgctggga tatggcaaaa atcagcgtgg ngaatgacaa ggat 420  
 cgttccttgg acaatgttca aatacaatcc nattgggatt cttccnaag aacgtgtct 480  
 ttgggnaagn attgtnanca ctgggnggat tnggaacact aaagaat 527

<210> 2675  
 <211> 498  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-H12  
 <400> 2675

cccacaatcc gaatcgaccc acngtccgc gaatttctag ggattatgaa ttatgagtca 60  
 gctcaacctg gcagctccag tgtcaatcct gggaccgtga aaggtactga tctagagggc 120  
 gaagttggtg aaacacaggc cgtggaaaaa gaaaaccttt tggttggtga agctcatcct 180

gctatccctc acggtcattc tccttcatct tcattcttctt catttaacat ggctcgacttc 240  
ccaagcatgc ctgctgttga ggtcttgtct ggtgggttctt catctactac aaaagacgtg 300  
ccagttcttc ttcaggagga tatagaaaag aatgacgtgg agataaccat gctcaaagga 360  
ctcnaggaaa tgggtttcaa aggagatana nttgaacaaa ggagatctna aggataacga 420  
ntncaacctg gagcaatccg ttgatgcnc c ttgtggantt ancgantggg atcaatccta 480  
aaggantca ggagatgg 498

<210> 2676  
<211> 438  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-030-Q1-E1-H2

<400> 2676  
tccaaatcct cagtttcatt ttcattctctc tctctcgtat tgatcagcta ctcgaaactc 60  
cggtaacgga ttttcacaat cccggcgggc aaactcttct tcccggctaa gttttcattt 120  
tcttcagatt cctcgtaaag ttgccggtgg accaagggtc aactcttgaa caccctaaat 180  
catgaatccc ttttcttctg gtactcgttt aaggacatg atccgtgcca taagagcatg 240  
caaaacagct gcggaggagc gagctgttgt aagaaaggag tgtgccgata ttcgagcatt 300  
gattaatgaa gatgaccgc atgatcgcca ccggaacctt gcgaaactca tgtttatata 360  
catgccnggg ttatcccaan acaactttgg ggcaanatgg aattgcttgn aagctaaatt 420  
gaatcncccg gaatttcc 438

<210> 2677  
<211> 482  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-030-Q1-E1-H3

<400> 2677  
gccacggtca cncataattc gccggtcgac gagctcanta atcggcggcc gccctttttt 60  
tttttttttg gagttagaat gctatgaatt ccaaaccaga gaagattcaa ataaaacaga 120



gactaaaaag gctgttcaaa cagtaataat tcttgacat gaacactaaa ccagaacgat 180  
aacaggaaac aaagatacag tcagtactca gtagtttgag ggcacctacg gaaagcaagt 240  
aatactacag agggtagacg ttccagtgtc taatgatgaa acatcatcag tacaagcaaa 300  
cgtgtttttc atcatacacc gtatcacttt cacaagtggc tgcagtcatt ccgcancata 360  
aggagattga cttcnagaan caacatcaac tttgcgcaaa aggagcaagg ctaacaagga 420  
anatggggga cccccaattg cnacgccttc aaggagaact cnccttaaaa gggaaaggcc 480  
tt 482

<210> 2678  
<211> 436  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-030-Q1-E1-H7  
<400> 2678

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aaggcgttgt agacgtcaaa gatactagtg gaagagtata attaataaga cctaagtcca 120  
tctagttgac gcgatcaaat gtctacctta atcacttttc ttttttgata aggtttatat 180  
cttgttttta ttaatgcagt tgatattgga acaaatgac ctgatgatca taagtaacat 240  
caaacctgag actaagagca aactgataga gagttttaga gatttcagct ttgatttggt 300  
taggtccctt tttgatcctt ctttttgga cgctctttac aatgggtctta tggcacgcag 360  
caatgtgatg aagatgctaa aaagaatgtt caaagagang agagaagaag caacatcgga 420  
tgacccaaat atgggg 436

<210> 2679  
<211> 406  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-031-Q1-E1-A1  
<400> 2679

gaaactttga agcttcttac tttctttact tcacgatcct tcttttgctt aatttctcgg 60

tttcatttcc aaaattctct ttgattctt tcttactctt tcgctagaga agatttagac 120  
 tgggttttga gtatttctcg gaaattttcg tgtntttttt ttctgggaaa gtttccgaga 180  
 tctcggtgga gtacgttttt tggcgacgaa ccagtatggt ttggtactca agctgtagaa 240  
 ttttgtttct gggctctgctt attttgttgg cttcganctg ggttttggat aaagccaagg 300  
 aatttggnaa atttgggttg gaattccaca atttccnecn ttaaagggtg tngggntttg 360  
 gcnggagaaa gggttaacca anccnnattc ttccaaatan tataca 406

<210> 2680  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-031-Q1-E1-A12

<400> 2680

gcataattgt ctcacccgag cttcctctcc agctaggggtt tgtttggttg attgaagaaa 60  
 gaaaacaaga atggtgtatt tcaatttcaa taggattaag angaanaaga ctctaattgg 120  
 atttggattg ggacagatcc tctcgcttct ctogacttct cttagcttta catcgtctga 180  
 gatcgctatg aaaagatttt agcttttttt tttttttcaa accatcccat ttttaaacad 240  
 tctcatgaac ttacaaaatt tgaaatcttt atagggatta atgctccaac atcacagtcg 300  
 tttctggggtt atntgttact ggnaatcgtc tatggaggta tcatgctcta tcgaacatng 360  
 gaattaaatg gtatcactat ctctccttg cgtttgttga tggtgnggcn aactttctcg 420  
 tgggaaaggc tatcaga 437

<210> 2681  
 <211> 450  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-031-Q1-E1-A5

<400> 2681

ggacagaagt ggagatcaaa gcttcggctg gacagtttca tcacatgttt gccgggaagc 60  
 cacaccatgt ctccaaagca agtccaggca acattcagag ctgtgatctg cacgaangcg 120

actggggcac tgtcggctct atcgtcttct ggaattacgt tcacgatggg gangcaaang 180  
 tggcgaagga gagaatcgag gcggtggagc cggagaagaa cttgatcacg ttttaaggtta 240  
 tagaagggtga tctgatgaaa agagtacaaa gaactttttg atnacgattc aagtgacccc 300  
 taaacatggg aaggcctgga aattattgtg caatgggaac cttgagtnat ganaaaatca 360  
 acgacnangt tactcaaccc caaactcccc tccaattccg tgttgaagtc tcccaagana 420  
 ttcaacaaca tctccttata ccaaggaana 450

<210> 2682  
 <211> 466  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-031-Q1-E1-A6

<400> 2682  
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 tcgaagagac tttcggatca tatgactcag cttctgtgat gcaacttcaa tcaccaagca 120  
 ggcattctca gatgaaccac tatccgtctt cacctgtgag gcagcctcct cctcatggat 180  
 tcgaatcttc agcagccatg gcagctgcag tgatgaatgc aagatcctca gcgtttgcga 240  
 aacgcagctt gagtttcaaa ccagctccag tagcttctaa tgtctccgat tggggatcac 300  
 caaatgggaa gcttgagtgg ggaatgcaaa gagatgagct gaacaagttg aggagaattg 360  
 cctcctncgg naatcaaggg aaccaacaac aacaagtng ncagncctgg cnaaaaacnc 420  
 agtggacnaa ccaaaatggt tccttggtna actcaccggg tgaaaa 466

<210> 2683  
 <211> 496  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-031-Q1-E1-A8

<400> 2683  
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 ttttgatatt gcgataaggg ttttctttaa tttcgtctac ggatatagaa aatgtcttcc 120

atcaatttat cctcatcatc tccttccacc atctctcttt cncgctcang actaagccaa 180  
 agctctacta cantactcca tggactacat cgtgttactt taccatctaa ccatccattg 240  
 tcaacctttt ccattaacac caatactggg aaaaagttaa gggctgcaag tgatctctaa 300  
 aanaaagatt gatctggctc ncaattcaac aaacgggana caatnctcct cctcaaaaat 360  
 gggccctca attgatgatn ngggncnnaa agaagccaat aanaaggcng aatnnggttt 420  
 caacnttggg acaacgtggc aggctgaatc ctggctcccg ggnacaagcn aaatgggttt 480  
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<210> 2684  
 <211> 413  
 <212> DNA  
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 <223> unsure at all n locations  
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 <400> 2684

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 tctcgaggag aatcttggag tgacaagaga gttgagagaa gagcgaccat cgagtaagat 180  
 agtgacaata acaagcttct cagtgattaa aggcagagga gaaccctatg aatcctctgt 240  
 ttttgaggct gctgggttaca aatggagatt ggttttgtac gtgaatggta ataaaaacga 300  
 cggtggaat gatcatattt ccctttacgc aaggatcgaa gagacaaact ctcttccatt 360  
 aggttgggaa attgaatgtt gatntcaaan tccttgtcca anaatgggga aac 413

<210> 2685  
 <211> 487  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-E11  
 <400> 2685

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 cgtgctccgc agtttctcga gtttctctc acttcagatc ttcataagag aattcactta 120

cggagagggga ctttttcgta gacgattctc actggatata tatcaccgga taagatcgtc 180  
 ttgctcgaaa agaattgaaa agtttttaag taattgaata aggaactgtg aatcggagag 240  
 gcttactttt ttgaaaagat ctaaaccatc gtagaagatc gtcctcaaaa tatctcacia 300  
 gaagttacca attttgaaaa gatnactaag agatagctac ggattttgag aaggcggggtt 360  
 ctgggtccaan gtccggnact ggtgaaaagn agaactacac tgggtttttc caagatgata 420  
 tgaaancttc cgtngaacga atccgantcn aaggnactca tcnaagagaa tccgggggatt 480  
 gtnttga 487

<210> 2686  
 <211> 517  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-E12  
 <400> 2686

gttgcctgnc ctacggcccg gaatcccgaa tcgaccacg cgtccgcca ngcgtccgaa 60  
 atcgtgtcaa attttaggt tttttctttt cgtacttcat caaattctgg aatctgggtt 120  
 tttcttagtt ttcttctata tacctttgaa tcgcatcttt gatccaaatt cattttagat 180  
 atcaccttga agtcgaattt gtgatttttt cttttcctct cgaatttca aagtctcacg 240  
 caactatgaa agaagacatg gaagtactat cgctcgcttc actaccggtt gggttcagat 300  
 ttagtccaac ggacgaagag ttagtccggt actatctccg gctcaagatc aacggtcacg 360  
 ataacgacgt tagagtaatt cgtgagatcg aaaacctgaa aatggaancc tgggaatttg 420  
 ccgaattttc cggnggtgaa gacaacaaga nccnaaatgg gtcctccttt ggncttggg 480  
 cccgggaata tccgnatggg aatccnaatg gaataaa 517

<210> 2687  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-E2  
 <400> 2687

agaagaaaaa aaatcatgga gatgaccgaa gcttccaaac agacaacagc agaaggatca 60  
 gcaaattccag aaccagacca aatcttgagt ccgagaagat cgttggagct aaaacaaaag 120  
 aaatggtgga tctctgtttc tttatgtatt ttcttagtct tgctcggaga ttctctagtc 180  
 atgctttctct tgaacttctt ctatgttcaa gacaatcgag aagatagtga ccaagatcta 240  
 caataccgag gaacatgggt gcaagctctg gtccaaaacg ctgcgtttcc actactcatt 300  
 cctctgtttt tcattttccc ttcaacaaaa caaaaccaan gaaaccacca atactcgttt 360  
 ctcccccttt cgtccaatct tacttaaadc nccctggggg tcctgttgcc ggtcanagaa 420  
 a 421

<210> 2688  
 <211> 477  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-E7  
 <400> 2688

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 ggattagttg tgctggctat cctactagga aacattttga tgagttcttg gccagatttg 120  
 gtattcttgc tccagaagtg ttggtaaaga actctgatga ccctgctgct tgcaagaagc 180  
 ttctggacaa agtgggactc gaagggtatc agattggcaa gacgaaagtt tttctgcggg 240  
 ctggacaaat ggctgacttg gatacccgaa ggactgaggt cttgggaaga tcagcaagca 300  
 ttattcagag aaaagttcgg tcatatctcg ctaaaaagag tttcatcggt ctgcgtaatt 360  
 ctgctaaaca gattcagtca gtttgagag gttatctcgc tagaagtga tatnaaaggc 420  
 atgcgttagg gaanctgctg ctttaaaatc cagagagact tgcgtaggtt tcnggct 477

<210> 2689  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-E9  
 <400> 2689

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 ggtgagtttc tgggtgaagaa tggggctctt cctgaggaaa ggattagagc tgttgaaaca 120  
 ggtggatgtc cacacgtgc tatccgtgaa gatatcagta tcaatttggg tcctcttgag 180  
 gagttatcta acttattcaa ggctgatttg cttctttgtg aatccggtgg agataattta 240  
 actgctaatt tcagtanaga actanctgac aatatcacca catcaaccga tgtatccggc 300  
 tgggtgataa aatacccggt aaaggcggcc ctggaatcac tcaagctgat cttccnggtg 360  
 ataaccaaga ctgaccttgc ancaactgtt ggggctgant nttcggccnn ggnaagggnt 420  
 tcctngnct ncttnttggg gggccatttt ccttngccca gggttaacca tgggt 475

<210> 2690  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-F1  
 <400> 2690

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 gatggccttt ttcttgcaa gaagaccaa tccggagccg tttgtcaggt cgaaaactgt 120  
 gaagctgac ttagtaaagt taaggattat catagacgcc ataaggctctg tgagatgcat 180  
 tccaaggcta ctagtccac tgtcggaggt atcttgcagc gcttttgtca gcaatgtant 240  
 aggttccatc ttcttcagga gtttgatgaa ggaaagagaa gttgtcgtag acgtttggct 300  
 ggccataata aacgtcggag gaaaacaaat cccgaacctg gcgctaacgg gaatcctagt 360  
 gatgatcact caagcaacta tctcctgata ctctccttga agataccctc aatatgcata 420  
 accataccng tgattaa 437

<210> 2691  
 <211> 518  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-F10  
 <400> 2691

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gaaatcatcg tcttcttctt catctattnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnncttgc ccgttctgtg cagaatcgta 300  
tgatatcatc gggttgtgct gtcacataga tgatgaacat acttttagagt cgaagaacgc 360  
cggtatgccc tgttggtccn cttaaagtgg gagttgataa ccgtagcaca cataacgctt 420  
caacaaggga atttanttaa gttgcagcga aagagaaagt cacgaaaaag cgttaccaat 480  
tcgacacttc acttctccgg aagaactaaa gagaaggn 518

<210> 2692  
<211> 465  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-030-Q1-E1-F2  
<400> 2692

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agcggccgcc cttttttttt ttttttttgg gatccataca acaacaactt taatatacat 120  
ttcacattaa ttgtcaaaca gataagaaaa gatcatacga aaatagagca gctgattttn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnt 240  
ttaaacttgt tctttcactc taaaacctgt tcttctcctt gcagttgctt ctcaccattt 300  
ttcttgtttt tctcattcac caaagttagt caaaacgaaa ctacaactac gcgaagcttc 360  
actcctccac aacaccaang ccantctcaa cantctctcc atcangggca ctattaaaca 420  
ttcaggncct cctcanactt gggggttccc ttttggncct tccaa 465

<210> 2693  
<211> 437  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-030-Q1-E1-F4



<400> 2693

acagcgaaga tgattttgtt gccatacgtc ctgagtggac cactgttgat cggattcttg 60

cctgcagaga ggaagatggg gagctggaat atcttgtcaa atataaagag ctatcctatg 120

atgaatgtta ttgggagtca gaatcagaca tctcaacctt ccagaatgaa attcaaaggt 180

tcaaggatgt aaattctaga actcgcagaa gtaaagatgt tgaccataaa agaaatccca 240

gagactttca acagtttgat catactcctg aattcctcaa aggcttgta catccatacc 300

agcttgaggg acttaatttt ttgcggttct cgtgggtcaaa acagacgcat gtaatccctt 360

gctgatgaaa atgggactaa gcaagacaat tcaaagcaat tgccttttaa cntcactttt 420

tgngggagaac cccatcc 437

<210> 2694

<211> 470

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-030-Q1-E1-F5

<400> 2694

cggtaaccgaa ctcaaattcg cgggtcgacc cacgcgtcca gtaagaccta actcttaacg 60

aactttttaga taaaagctta taactgagag agacatagat cgacaaaagt ctctatacct 120

tcttgtaacg tgggtggttaa ttaatcatgg ccgatcaaat ctccggcgag aagccggccg 180

gagttaatag attcgtctct caatgtgcta tcgtcgctc catcgtctcc atcatctttg 240

gttacgatac tgggtgttatg agtggagcga tgggtgtttat agaagaagat ttgaagacaa 300

acgacgttca aatagaagtt ctactggaa ttctcaacct ttgtgccctt gtcggatcat 360

tgctcgccgg aagaacgtcg gacataatcg gacggcgta cacaatcgtc ttggggtcaa 420

tactantcat gttaggctca atantgatgg gttgggggtcc gaaatatccn 470

<210> 2695

<211> 442

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-030-Q1-E1-G1

<400> 2695

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aggttttgaa aaccggtgag acttgctata acccggagct agctcagagt cttgagacta 120  
tttctgagca aggcccgga gcgttctaca acgggacagt aggcgagaag cttgttaaag 180  
atgtgaagaa ggcgggagg atcataacga tggatgatct aagaagttat aagggtccgag 240  
ttaccgatgc aatgtctgtg gatgttatgg gttatacggg tcatggaatg ccgcctcctt 300  
cgggcgggtac agtcggtttt tcgatgggta tgaatatctt ggatagttac tccaatcttt 360  
acactgcttc gggaagaaaa ctccggctgc accgttttga taaaaacaat gaaacatatg 420  
tttgcaaccc gtaatggatt tt 442

<210> 2696

<211> 521

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-030-Q1-E1-G12

<400> 2696

antggtttgc ctgcgcccta ccggccccgg atntcccgna atcggccac gngnccgatt 60  
tantcttcat tcttcgnttt cataccanaa caagaactct ctgttttcga caaaaacgaa 120  
accttgagat ctattttgat tgacttttaa gaaagagaga gatctttctt agaagatttt 180  
gtctcgtcgg cattgaagat ccagggtttg tctttcgaaa ttcagagaga aaatgggtga 240  
tgaggcagag atcaaggaac atttaaagcc acaagcttca tctgaaacaa tggacaagaa 300  
acataatgtg aaagggaaga gggttatggc agaaagtcaa gtatcaattg gtggagtttc 360  
attcattgcc tgcttattaa gagacatggg tntcantgg gcnatnccga ttcngattgg 420  
cgatttaaca gatcctcnca ncaaccttac aatcncaat ggaccttgga ggttngggcc 480  
ctgaatnggg ttttnccggt ttgggcncac caaataaccg g 521

<210> 2697

<211> 422

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-030-Q1-E1-G3

<400> 2697

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cagagactaa aaaggctgtt caaacagtaa taattcttgc acatgaacac taaaccagaa 120  
cgataacagg aaacaaagat acagtcagta cttagtagtt tgagggcacc tacggaaagc 180  
angtaatact acanagggtta gacgttccan tgcttaatga tganccatca tcagtacaag 240  
caaacgtgtt tttcatcata caccgtatca ctttcacaag tggctgcagt cattccgcag 300  
cataangaga ttgacttcna gaagcagcat caactttgcg canaggaaca aggctaccan 360  
gaagatgggg actctcaatg ctacnccttt aaggagacat ctcctanaa aggagaggcc 420  
tt 422

<210> 2698

<211> 445

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-030-Q1-E1-E1

<400> 2698

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cttcgatctc agcagtgctc tttatggatc ttogtcacct gtggttcagc tcaactgcttc 120  
taactttaag tccaagggtc ttaattcaaa tggagttggt ttggttagagt tctttgcacc 180  
atggtgtggt cattgcaaag ctctaacacc tacatgggag aaagtggcta atattctgaa 240  
aggagttgct actgtggctg caattgatgc anatgctcat cantctgccg cgcaggatta 300  
tggtattaaa ggtttcccaa caattaaggt ttttgttccg ggaaaggctc caatcnaatt 360  
ancaangaac aaagagatgc caaatccaat tgcnaaatct gccttaaaag caaattaang 420  
ggccttttaa ntgaccgttt ggaaa 445

<210> 2699

<211> 531

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-030-Q1-E1-B12

<400> 2699

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atgttagant cggagctaac aagtttccgg agaggcaacc gatcngaact tcngctcaca 120  
gtgacaagga ntacaaagag ccaccacctg cgccgttggt cgagcccggc gagctanctt 180  
catggncctt ctgganagct gggattgctg agtttatagc tacgtttttg ttcctgtaca 240  
tcaactgtttt gactgttatg ggtgtgaaga ggtcaccgaa catgtgtgct tccgtcggaa 300  
tccaaggtat cgcttgggct ttcggtggta tgatcttcgc tctcgtctac tgcaccgctg 360  
gtatctccgg tggacacatc aanccaancg gttacnttcc ggttggtcct aactaaggan 420  
ccttcctca acaacgaacc gtgtncaca aaaggaagn aattgcctta aggaacnanc 480  
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<210> 2700

<211> 449

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-030-Q1-E1-B2

<400> 2700

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnatgttaa acctgccgga gaacgccgcg 120  
gatcatccgg ttccggaacc gtcggatcgt caggctccgg aacaggcgga tctcgttcca 180  
ccacatctac tcagcagaat ggtcggatct taggtcggcc gatggaggaa gtacggagaa 240  
cctatgagtt tggtcgtgag cttggtcgtg gccagtttgg tgtcacgtac ctcgtaactc 300  
acaaagagac gaaacaacan gtcgcttgca agtcaatccc tacgcgcgcg ccttgttcac 360  
aaaagacgac attgaagatg ttcgcogtnn aagtccaaa ttatgcaaca atctcaacgg 420  
gtcaaccgga acaatatnga ccttgaagg 449

<210> 2701

<211> 468

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-030-Q1-E1-B4

<400> 2701

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agaatggcgc gaaaatccct aattttcccg gtgattttgc tcgccgttct tctcttctct 120  
ccgccgattt actccgccgg tcacgattac cgcgacgctc tccgtaaaag cattctcttc 180  
ttcgaaggtc aacgttccgg taaactccct ccagatcaac gcttaaaatg gcgccgtgac 240  
tcagcattac gcgacggttc ctccgccggc gttgacttat ccggtgggta ctacgacgcc 300  
ggagacaaca tcaagttcgg ttttccgatg gcgttcacaa caacgatgct ttcattggagt 360  
ataatcgatt tcggtaaaac catgggaact gagcttaaaa acgccgtgaa agctgttaaa 420  
tggggaacag attacctccn taaagcgaag gggaatcccc gggtatct 468

<210> 2702  
<211> 444  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-030-Q1-E1-B8

<400> 2702

anaaatctgc cggtcgaccc acgcgncng aacaaacctg gaatactact tgaagttgtg 60  
caagtectaa ccgatctcga tctcactatc actaaagctt atatctcttc tgatgggtgga 120  
tggttcatgg acgtantcca tgtcaccgat caacaangaa acaagggttac ngatatcaaa 180  
accatcgatt acatcgagaa ngtgtagga ccaaagggtc atgcttcggc ttcacaaanc 240  
acttggcctg gtaaaanagt cngtgtccat tcattangcg accacacatc gatagagatt 300  
attgctcgtg atcgtcctgg tctcttgta gaggtttcag ccgtactanc agacctcaac 360  
attaatgtgg tggcaagctg aacatggact cacaaaccgt taggattgcn tgtgtcctct 420  
angtgaatga caatgcaaan tcca 444

<210> 2703  
<211> 515  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-030-Q1-E1-B9

<400> 2703

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tattccagtc ggtggatcga actctttggg aacttggggg tatatagaag cagcaaggga 120  
aattgaggag cagctgaatt atagacccga tgacctgaaa tttgatgata ttgtggtagc 180  
atgtggcagt ggtggtacaa ttgctgggat ttcattgggg tcttggttgg gagctctaaa 240  
agccaagggt catgctttct cggtttgca tgatcctgat tacttctatg actttgtcca 300  
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tgccaaagga aaaggatatg ccatgaacac gtcagaagaa ccttgagttg ttaaagaaag 420  
ttacaaagtt caactggtgt taatcctgat tccgtttaca nttggaaaac tccttanggt 480  
tgataaatga gattaccaa gatcccaatg tttgg 515

<210> 2704  
<211> 453  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-030-Q1-E1-C11

<400> 2704

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agatgactga gaatcgggtg gttttggctc tgcttatact ctgcattgtt gggtttgagc 120  
caagtttcat ccatggagct acggattcat cagatacttc ggcgttaaac atcatgttca 180  
gtcccatgaa ttctccagga cagctctcac aatggacagc atcaggaggt gatccttgtg 240  
gccaaaactg gaaaggcata acttgctctg gctctcgagt tacacaaata aagttaccaa 300  
gtcttgagct ttccggatna cttggattca tgcttgataa attgacntcn gttactgagt 360  
ttgatatgaa caacaattac cttggaggca attgccttaa caacctctc caaacttgga 420  
nccaantgaa tcctgctaataaccaattca ctg 453

<210> 2705  
<211> 532

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-C12  
  
 <400> 2705  
  
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 ggggtttcttg gacagaacga tcatagacga tttcaaagat tacgcggatc tatgtttcga 120  
 gagatttggg gatagagtaa agcactggat caccatcaac cagcttttca cagtgcctac 180  
 gagagggctat gcattgggaa cagatgcacc cggtcgatgt tcccaatggg tggataaaaag 240  
 atgttacggg ggagattctt ccaccgaacc ctatatcggt gcgcataacc agcttcttgc 300  
 tcatgccacg gtcgttgatc tatacaggac gagatataag taccaaggag ggaagattgg 360  
 cctgggtgatg ataactanaa tggttccaac aatatgatga cactcctana agagcaaach 420  
 agcaactttg gangggcaaa agaaatcctc ctgggggaatg gtcaaagggc cccctaaca 480  
 aanggnaat nncnttcat cnaganggaa acctgtttgg aancccggt tc 532

<210> 2706  
 <211> 426  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-C2  
  
 <400> 2706  
  
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 ggaagtgcag ttggatctgg ccattctact cctgctggaa ataatcagcc tccgtggcca 180  
 aaaatgaaac catccgatgt tcagaaatac acaaaggat ttatggaagt tgatagtgac 240  
 aaggatggaa aaatcactgg tgagcaggcg aggaatctat ttttaagctg gaggttacc 300  
 agggangtat tgaagcatgt gtgggaatta tctgatcagg ataatgatac taagctttct 360  
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<210> 2707  
 <211> 426  
 <212> DNA  
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<223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-C8

<400> 2707

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aatcgataat ctaaccggca tgaggccaat cctattgccg gatccacca gtctatctac 180
cggcgtccct gatattttcg aacaaggcgg ttcccataac gtcgtcagac gcgccgtcgt 240
catcggaaac ggtttccctg gctccgagaa tcagtgtatc ggtctcgttc gtgcgctnng 300
cttatctgat aatcaccttc tctaccgan gtgacaagga cctnaaaggg agggactaaa 360
tngaattggn tggcaatggg ntccccaaat tgggntttcn ccaagaaagt ttgggncttt 420
aatcct 426
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<210> 2708  
 <211> 513  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-D11

<400> 2708

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tttcgcagag gaaccatcac tgattgtgtc accgaaccat tgatcttcaa gttccgatcc 120
aatttcagat atgtcgagga ttattggtag aaaagggatt aactatatcc atagactaaa 180
ttctgcgtcg ttcacgagcg tatctgcttc ttcaatcgag aaagggcaaa atcgcgtgat 240
tgatgcttcg ttaactctta ttcgtgaaag ggcaaaactc aaaggagagt tagtgcgtct 300
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aancacaaaa ctntgtccac tgaaanaaag ggaaaggant tnaaaggnt caacnggttt 480
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<210> 2709  
 <211> 510  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-D12

<400> 2709

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canaagctgg acatgtcaag caacactctc agtggnccta tccctgcttc gcttgggcag 120
ttanaanagc ttantaactt caatgtctcg aacaacttcc tgggtggggca nataccttca 180
gacggagtgc tctctggatt ttctaagaac tccttcattg gaaatcttaa cttgtgtgga 240
aagcatgttg atgtcgtgtg ccaagatgat agtggaaacc cttcatcaca ttctcantca 300
ngtcaaaatc anaagaaaaa ctctggtaag ctgctgatta gcgcatcaag caactgtagg 360
tgcgctactc ctaagttgca ctcaagggtg ttcttgggga tggctttcaa nataaaaaag 420
ccncggtaaa tccgaaaatt taaagnctcg gcaanggatg tttggtggaa ggttcctcta 480
attgngaatz ttccacnggg gaatttacct 510
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<210> 2710  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-030-Q1-E1-D2

<400> 2710

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gttgacgatg acgttcatgt gaatcttgcc tccctcaaga aggctttatc cgcacaccaa 180
aacaagctc gggtttatgt tggttgcatg aagtctggtc ccgtcctagc cagaaagtaa 240
gtaaaaacc tactaagggtg agcatttttt aggtacttaa acagcgtaag agcatcaacc 300
tttccggact ttctatactt ctggcaaaaa aaaaaacagg agtgtgaagt accatgagcc 360
agagtattgg gaattttgga gaaatcngga acaagtattc cgccaagcca ctgggcaatt 420
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ttaggcaaaa cnaaaga

437

<210> 2711  
<211> 452  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-030-Q1-E1-D9  
  
<400> 2711

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gctttttctta attattatta taattttctc ttcttaatcc ccaaattctc tgatggattc 120  
atgaaccaga tcggctgatt tgagtttccg ggtttgattt ttttcccttt ttgtgaaatt 180  
gggttggaat ctggagatct ggatcttata aagctggaaa ctttacgtgt gcttgatgaa 240  
ccgattttga ttaggtgatt ggtagattc ggaaatttga agacttgta atttgggttt 300  
gggattggga ttgatctgaa aattttagt ttttggaga tatgttgga gattgattac 360  
cagaatcctg tttgatacaa ggggtttccc aagctcncgt ccttccgaat caaactggtc 420  
caaccctaca tgtttccaga gggatgatga na 452

<210> 2712  
<211> 482  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 2712

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gaaaaagttc acatgtatga agattctcac caaatgtggt atcaatcccc aaccaaattg 120  
attccttggga gaaatagtca tgggtctgtt gcggaggaaa atgaccatcc tcaaactggt 180  
aaaagctttt caagtaatga taaagttgct gcttcttcgg gttttctctt ggatacgtac 240  
aattcagtaa atcctgatat tgactcagca gtttagacca agattcctga acacagtcct 300  
gtttcagcag tttcatcgta tctacgtacc gagccttcgc tgcagtttgt tcagcatgac 360  
ttttggcaac caaaaacaag ttgtggaaca attaacngtt ttacaaatga attgttaaca 420

tcctgacgaa aaaacatcag ccagcttgct cacngtcngc tcacaagggt aanccttcgg 480  
aa 482

<210> 2713  
<211> 461  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-028-Q1-E1-G11  
  
<400> 2713

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gtaataatgg taacgaagaa gatgatcaac aagaggaaga agaaacggat cttctgaaac 120  
gatccgggtc aagtgcaagt accgggttcag cgacgggttcg attaccaacc ggaagaggta 180  
gttacagtag atccaccagt agtatacgcg agatcgagct gattccgac gaatcgggtga 240  
ttcatctgag ctggattgct cggcgaatgg tctccgccgg ttatctccgt gaatgtattc 300  
aagtctacgg aagcgttcgc aaatccgccg tgcattcaag tttccgacgg ttagggatcg 360  
agaaactcag catcggagat gttcanaggc taaattggga aacgcttgan cagaaagatt 420  
cgtcttggtat tcgaagcact aagatcgtgt ganaattgtg t 461

<210> 2714  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-028-Q1-E1-G12  
  
<400> 2714

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ggacacatta gatgagccga agcggatagc aaagaagctt acttctcatg tatctggtac 120  
gggttgccat aagaaagttt ctgaaggaag caatagaaaa agggataatg atttacatcg 180  
gttgctgttt atgcctaata gacttccaga cgggactgaa ttggcttact atgtgaaaac 240  
gcagaaacta ctacagggtt acaagcaagg aagtggata gtatgtagct gctgcagtag 300  
agagattagt ccttcgcaat ttgaagcgca tgctggaatg gcggctagac gacaacctta 360

tcgacatatc ttcattctctt ctggattgtc attgcatgat ataaccatgt cactggggcca 420  
a 421

<210> 2715  
<211> 438  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-028-Q1-E1-G2

<400> 2715

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gatcgttgaa gatccaagct acgccgcac ttactcgccg ggggcttgaa tcatggctga 180  
taggagaaac aggtgtaacc agatcctcct tttagcatac cagagttttg gcttagtggt 240  
tggagatttg agtattttct ctctctatgt gtataaatgt acattctacg gaggattgag 300  
acatcaccaa acagaagata cgatatttgg cgcgttttct ttgatatttt ggaccatcac 360  
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gagggatctt tggctttg 438

<210> 2716  
<211> 454  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-028-Q1-E1-G4

<400> 2716

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acagtttcgt tacacgcaac ctctgtcaaa ggttcttcat ttgagaaact tgccatggga 180  
atgcactgaa gaggagttaa ttgaactcgg aaagcctttt ggtactgttg ttaatacaaa 240  
atgcaatggt ggagctaata gaaatcaagc tttcattgag tttgaagatt tgaatcaagc 300  
tatacaaatg atatcttact atgcttcttc ttcggagcct gctcaagttc gtggtaaaaac 360

tgtctacctc cagtactcca acaggcaaga gatagtgaac aacaaaacga cagcgggatg 420  
 ttgtggggaa tggtcctccg gtgactaanc aaag 454

<210> 2717  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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<400> 2717  
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 cgctattatt gctggaggac gattgggtgt ttacttttta ctagtaaacg gagtaatttc 180  
 ccaagcgaaa ggtttcattt ttgagctcca cggtgaacga actaagcggg ttctcggagt 240  
 tctcttgctt cctctccacc cagcgcaatg gagaaaacag acgaagagag gaagaaggct 300  
 cagatgctgg acgctcgggc cagaaacatt agccacaatg ttcgctgcac tgagtgtgga 360  
 agtcagtcca ttgaagactc gcaagnaaat atcgctaate cccctaaan agcg 414

<210> 2718  
 <211> 480  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-028-Q1-E1-H1

<400> 2718  
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 tcatcagcct ccatccaaga tcaattcata aactgtgtca aaagaaacac acatgtttct 180  
 tttccactcg agaaaacgtt attcaccctt gcgaaaaacg tctctttggt caaccaagtc 240  
 cttgaatcga cgggtcaaaa tctccagttc ttggcaaat ccatgcctaa accgggatcc 300  
 atattcagac cgattcacca gtctcaagtc caagcttcca tcatttggtc aaagaaactc 360  
 ggaattcatt ttcgtgttag aagtggcggg cagcatttcg aaggccttgt cctaagtttc 420

acggattgaa aaaccgttta nantactcga actgtcaaaa atggaaccaa tccatgggtg 480

<210> 2719

<211> 460

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-028-Q1-E1-H11

<400> 2719

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gcccanttgt gtgaagctgg cttgtctcaa naagaacagg acanggtctc gaaattgcct 180

ggtcanaatt ttaatgttag nttgcacan tactctgggt ttgttgctac taatgagcaa 240

ttgggaagag ctcnctttna ctggttattt gaagccgttg aagatgctaa gtctaagcct 300

cttgttctct gggtcaatgg aggaccatna tgttcatctg ttgcatatgg tgaaagcaga 360

agagatatga ncatttcaca ttaaggcaga tgggaanact ctttacctta atcaatattc 420

gtggaaccaa gctgcaaata ttttgtccnt gaagcaactg 460

<210> 2720

<211> 463

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-028-Q1-E1-H12

<400> 2720

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aatgagacaa gattaggtta cggtttagca taggattcca aattcatttt caatcccaaa 120

aatacgatta ttcaggatat gggcaatctt ctggtaagcc aagcgagcaa gatacgtagc 180

cagacataga agcagcttac aattggctaa gacagaccta cggtacaaaa gatgaacgta 240

tcattttgta tggacaatcc gttggaagtg gaccgtcgct tgagcttgct tctcgtcttc 300

cacgtctccg agcacttggt ctccatagtc ctttcttgtc tgggtctacgt gttatgtacc 360

ctgtcaagca ctcttcccg ttcgacattt acaagaatat tgacaaaatt catctcgtgg 420

gagtgtcctg ttctgtaat tcatggaaca gatgacgatg ttg

463

<210> 2721  
<211> 476  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-028-Q1-E1-H6  
  
<400> 2721

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aganactaaa aaggctgttc aaacagtant aattcttgca catgaacact aaaccagaac 180  
gataacagga aacaaagata cagtcagtac tcantanttt gagggcaccn acggaaagca 240  
ngtantacta canaggggtan acgttccagt gcttaatgat gaaacatcat cagtacaagc 300  
aaacgtgttt ttcatcatc accgtatcac tttcaciaag tggctgcagt cattccgcag 360  
cataangaga ttgactcgan aaagcagcat caactttgcn cagaggagca gggctacang 420  
agatggggac tctcaattgc tangcccttc aaggagactc tccttanaag gaaagg 476

<210> 2722  
<211> 476  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-028-Q1-E1-H7  
  
<400> 2722

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tattccagaa tgccctatcc ctggtgaaag atgganagaa gttaagcatg acaatactgt 180  
tacctggctt gctttttgga gtgacatc caatccanaa gagttcaagt atgtattctt 240  
ggcagctagc agttcgttga anggacanag cgananagan aagtatgaga aagcgangaa 300  
gctacataac catataggga gtattagagc agcatacacc atanatttta ntancaagga 360  
tgtnacaaag cggcaagata ncagtggcaa catatctcat cgataagcta ncccttangg 420

ctggaaattg agaangatga cgatnacgca gatactgttg gctggtgggc attgna 476

<210> 2723  
<211> 442  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 2723

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cggagaaaag ctagctaggg tttctccacc gtgaagattc tagaagcgag aatttggaat 120  
ttgctaatta agaagatgtg ttacgatctt tcttaantaa aaaagcattg aaattgacga 180  
atntaggggtt gtgaaaaata tggatttgga ttcttcaatg gtaccagaga atgatcaaga 240  
tcctattgct acgtctgaga atcaatctcc tatggaggag aaagaagaan cgtctgagca 300  
acaaaccgga tccgaatccg aatcggcgtc attgacnccn tctctcctc ntccttcgca 360  
gcagcaacat cancagcagc aacagccgca ngtaacggcg gtngttggcc cgagatgtcg 420  
ccaacgtaat cggttgtna tg 442

<210> 2724  
<211> 460  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 2724

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aattcaaaga cgactgtgtt gttgtttcct cgaaaagttt cttcaattgc atttgctatt 240  
ggtggattaa cttctttcgt catcttcgct tctctgcttc ttttcacgta tccattgggt 300  
tcctctgtta ctgactatct ctacagaaca gagaccactc aaaacgtcca gtttcacat 360  
agtatccatg atcctgatcg taacctatct cctgtttcta gctcagagtc accaccanta 420



ttgacacaag atagtgatga taaaagtgct cccaanggat

460

<210> 2725  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-028-Q1-E1-G10

<400> 2725

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aggggttgaa gttgtaattt tgaagaagtt gaagatcaat caaaaataat agaagaacag 180  
agacgacgaa acgaaaccag ccggagaact gagcagagaa aaacccccgg cgagaatggg 240  
aaattcgaat tcgtcttctg ttgatcatcg cttcatttct gcttccagag cttttactca 300  
gaagaagctc gatgatctca aatctctctt cgtctccctc gcttccaatt ctcagagcaa 360  
tgaccaatac gtctcgtanc ctgttttcca ngttttgacg attcgtgttc tgtcc 415

<210> 2726  
<211> 486  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-028-Q1-E1-D1

<400> 2726

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tcttgccatt cactttcacc accgccacac gtgacacatg tgcgaccgcc gctcccgatg 180  
gttccgacga cctctcaatc atccccatta acgcaaagt ctcacctttc gcacccactc 240  
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ccggtaatca gctccacatc ggaaactacg tgggtccgagc caaactcggc actcctccac 420  
agctaattgt catggtccta nacacaagtt acgacgccgt ttgggtcccn tgggtccgggt 480

ggtccg

486

<210> 2727  
<211> 468  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 2727

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ttggagggttt agccaggagg acaacttcag ctgaattcct caagcatttt gggaaatatg 180  
gagagatcac tgattctgtg attatgaagg ataggaaaac tggacagcct cggggatttg 240  
ggtttgtcac atatgctgat tcctctgtgg tcgacaaagt tatccaagac aatcacatta 300  
taattggcaa gcaggttgaa attaagcgga cgataccaag aggattcatg agctctaacg 360  
atttcaaaac caagaagata tttgttgggtg gaattccttc atctgtggat gatgatgaat 420  
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<210> 2728  
<211> 442  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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ttaccatttt cttgttgggc actccgtttt accgccataa acttcccact ggaagcccat 180  
tcaccaagat ggctcgagtc atcgtggcctt catttcgcaa agccaatgca ccaatgacgc 240  
atgacatcac gagcttccat gagctgcctt ctcttgaata tgagcggaaa ggcgcctttc 300  
cgatccaccc tactccaagt ttacgattct tagacagagc ttactcaaa acaggaacaa 360  
atcataaatg gaatctttgt actaccacag aagttgaaga aacaaaacaa atgctgagaa 420

tgttaccaat ctgttcataa ct

442

<210> 2729  
<211> 420  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: LIB22-028-Q1-E1-E10  
  
<400> 2729

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aagatccggg agctcgaaac cgtcggcgat cgccatttca gaaccagca aggtttctgc 180  
ggaaatagaa ttgagaaaga tgaaaccatg tattccgatg gagatgatga agagtacgac 240  
gtttctatcc gaagacgaac tgctctgatt cagcctggta ttgattccgg taacaattat 300  
gattctgctg cagctgaaga aaccaacaga gaaagtaaaa atccagttgg ttgggaactg 360  
gttgtgagag aagatgggga aggttaattca acgattgatc gacatgaaat gggagttaa 420

<210> 2730  
<211> 468  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-028-Q1-E1-E11  
  
<400> 2730

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agattttctga aaataaagtc gtttcttttt ttttttgcc tggtcactca agactctctt 120  
cttcactctc tgttttttgt cctcttctaa aatttagaga aaaaaacgaa agttttcacc 180  
aaaaacagag gaggagctat gtcacgtcg acgatgtaca gaggagttaa tatgttttca 240  
ccggcaaaca caaactggat ttttcaagaa gtcagagaag ccacgtggac ggcgaggag 300  
aaciaaacggt tcgagaaagc tctcgcttat ctggacgaca aagacaatct tgagagctgg 360  
tccaagatcg cagatttgan tcccgcaaaa acagtancgt acgtcattan accnatacaa 420  
ggagccaaga ggatgatgtc agcgacatcg aaacccggac ttancccc 468

<210> 2731  
 <211> 481  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-028-Q1-E1-E4  
  
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 gatctttttca ttttatctct ctctcttttt cttctatcca aaacaccatt tttgagatca 120  
 gagcttctag cagcgtaaaa aatgcagacg aggtatatgg agaggactaa tagtatgaga 180  
 gagaagagaa aattggagga agatgataat cagcagcagc agcaacagcc tgagcgtaaa 240  
 aggccagctc ttgcaagtgt aattgtggaa gccttgaaga tggatagttt acagaggctt 300  
 tgttcttctt tggaaccgat tcttcgccga gtggtaagtg aagagggtgga gcgggcattg 360  
 gcaaagcttg gccttgcaag acttagtgaa aggtcgtctc caaaacgaat tgaaggtatc 420  
 ggtgggaagg aatttgcagc tacaattcaa ggtcnaaaat tgtccggtnc cttgttaacg 480  
 g 481

<210> 2732  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 2732  
  
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 caganactaa aaaggctggt caaacagnaa taattcttgc acatgaacac taaaccagaa 120  
 cgataacagg aaacaaagat acagtcagta cttagtagtt tgagggcacc tacggnaagc 180  
 aagtaatact acagagggtg gacgttccag tgcttaatga tgaaacatca tcagtacaag 240  
 caaacgtggt tttcatcata caccgtanca ctttcacaag tggctgcagt cattccgcag 300  
 cataaggaga ttgacttcga gaagcagcat caactttgcg cagangaaca agggctacca 360  
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<210> 2733  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-028-Q1-E1-F10

<400> 2733

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 cttacctgct ttgaacgata ccaggatcga taaactacct tattccatta ggatacttct 180  
 tgaatcggcc atacgtaact gtgatgagtt ccaagttaag agcaaagatg ttgagaagat 240  
 tcttgattgg gagaatactt ctccaagca ggttgagatt ccgttcaagc ctgctcgggt 300  
 tcttcttcag gactttactg gtgttcctgc tgttggtgat cttgcttgca tgagagatgc 360  
 catgaataat ctcggtggtg attccaataa aattaatccg ctggtccctg tagatct 417

<210> 2734  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-028-Q1-E1-F11

<400> 2734

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 tcggattatt cgggcttaaa gagcttccag tggcatcttc tttaacaatt ccccttccgg 180  
 ttctcacggt ctttttcagc atttactgcc aaagacgggt ttaccacaaat ttcaaactct 240  
 atcctacca gtgtctggta aacaaagata aagcagacga gagagagcaa aacatgtctg 300  
 aattctattc ggaactcgtt gttgcttacc gagatcctgc actttcggca tcacaggact 360  
 cgagagatat ctaccttga gatcaccttt ttacttgagc tattgaagtt tgcttatggt 420  
 gaagctgttg gtttactata cctggtgcaa tccatgaaag aacacac 467

<210> 2735

<211> 469  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-028-Q1-E1-F2

<400> 2735

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aagagggaga gagatgaaga agccggtcgg agccgagaag aagagggtta aacgatcatc 120
gggatctgca tctacttccg ttagagattc tggttctgat tctcaaccta ggaagcaagc 180
tgtgaagaag gatagttttc agttgtttgc tgagaaagtt agagaccaca agggattaga 240
atccagatgg gctgttatgg agcaagcacg agttgaatac tttagaggga aagattttgt 300
gagctttatg aagaataacc ctgactttaa agatattctg gaagaagata aagaccttga 360
cacagacgat attgccaatg ttttgttggg aaagaacttt tgggccgctg tgatcgtgtt 420
actaaaactc ctcgctccng gnaagaaaaa gctccccaaa cttggccng 469
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<210> 2736  
 <211> 447  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-028-Q1-E1-F5

<400> 2736

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180
nnnnnnnnnn nnnngagttcg gctacgaacc agagtaaaca agggaaaccc aagaacaaaa 240
acaatccttt ttacagcaat gaatacgcta caacagatag atctggagct ggttttaagc 300
tctctgtgct gaaagatcct acaggacatg atatatcctt gcagtatgat cttggacgtg 360
aggttggtcg aggcgagttt gggтатаant tacttgtgta ctgataagga aactgggtga 420
gaaantagcc tgcaaantca tacccta 447
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<210> 2737

<211> 458  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-028-Q1-E1-F7

<400> 2737

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cttaacgaac ttttagataa aagcttataa ctgagagaga catagatcga caaaagtctc 120
tataccttct tgtaacgtgg tggtttaatta atcanggccg atcaaattctc cggcgagaag 180
ccggccggag ttaatagatt cgctcttcaa tgtgctatcg tcgcctccat cgtctccatc 240
atctttggtt acgatactgg tgttatgagt ggagcgatgg tgtttataga agaagatttg 300
aagacaaacy acgttcaaatt agaagttctc actggaattc tcaacctttg tgcccttgtc 360
ggatcattgc tcgccggaag aacgtcggac ataatcggac ggcgttacac aatcgtcttg 420
ggctcaatac taatcatggt aggccaataa tgatnggt 458
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<210> 2738  
 <211> 403  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-028-Q1-E1-F8

<400> 2738

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ctgaaggcga ctcaaataac cccggttcat tggctggtaa gaagattctc atcccagggtt 120
ctggacagga gattcccgtt aagaccagca cttgttgtac ttcttcttga tctgtctcct 180
actcaagcaa gattcatttt ttttctcctt gaaatttgat atagagaatg ctactttcat 240
tgtatattct ttttcgaatc tggcttggtt gctagttcat taaacattgg tgtgcaattg 300
gacaccgata gaaagtattg gaacaaatag cttttgaatg aaatatgaaa caaacagtct 360
ttgagagtta acgtcaaaaa aaanannnna aaaaaaaaaaagg ggc 403
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<210> 2739  
 <211> 456  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-028-Q1-E1-F9

<400> 2739

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acagatctac accgctttat cttcgaagaa aacgtctgca gcagacatgt tgaaggctta 120  
ccagacatac atgtcgggtct gccctttcaa gaaagctgct atcatatttg ctaaccacag 180  
catgatgcgt ttcaactgcaa acgccaacac gatccacata atagatttcg gaatatctta 240  
cggttttcag tggcctgctc tgattcatcg cctctcgctc agcagacctg gtggttcgcc 300  
taagcttcga attaccggta tagagcttcc tcagcgcgggt tttagaccag cggaaggagt 360  
tcaggagaca ggtcatcgct tggctcgata ctgtcagcga cacaatgttc cgtttgagta 420  
caacgcaatt gctcagaaat gggaaacgat tcaagt 456

<210> 2740

<211> 417

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-028-Q1-E1-C9

<400> 2740

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tggcgcttat gaatggaagc atgaatctat catcgggtcaa atcatcgatg atcaaccacc 120  
gtcaacaaaa cttctcctcc gccgtctcca gaccacttc tttccggatc tccgccgtgc 180  
aaaccgaccc aaaaacacca gctgcttcat cggcgtcggc ggcgacgacg actccggcaa 240  
cgttgacgaa gcccgttgga gttaatgtgg gtaaaggaaa atgggcacca gagagttgga 300  
ggacgaagaa agctttacag caaccggact atccagattt agctgcgctt gaagctgtgc 360  
tagagacgat cgaagctttt cctccgatcg tgttcgccgg agaaactana ttgcttg 417

<210> 2741

<211> 485

<212> DNA

<213> Arabidopsis thaliana



<223> unsure at all n locations  
<223> Clone ID: LIB22-027-Q1-E1-H1

<400> 2741

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cncctcttcca ttaaatcttt gtggttctct tttattgttt tgatactgtg ctctgcttcg 120  
gagagtgtag aaagagacag agctaaagtc tctgtgtttc ttctcagcag gactaaaagg 180  
aaaaaaggaa atcgattgct aatgtcgggt gagaaacaag cggaggagtc aatagtagtc 240  
tccggggagg atgaggtggc cggtagaaaa gtggaagatt cagcggcgga ggaggatatt 300  
gacggcaacg ggggcaatgg atttagtatg aagagcttcc tctggcatgg cgggtccgct 360  
tgggacgcct ggtttagctg tgcacaaat caagtggcac aagtgtgtt gacgetgccg 420  
tattcgttct cgcaattggg aatgttatca aggaataatt gntcaaata atccaaaggg 480  
gtaaa 485

<210> 2742

<211> 458

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-027-Q1-E1-H11

<400> 2742

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tcgttttgtc nttctttatc gtctcggttt cgtcatcnga tgtcaacgac ggcgangatc 120  
tcgtgatccg tcangtggtt ggtggagccn ancctcangt ttgacctca gaggatcant 180  
tttctctctt caagcggnan ttcgggaagg tctangcttc caacgaggag catgactata 240  
gattcncggt tttcaaagcg antctcaggc gagcgatgcg tcaccatnaa gttggatccg 300  
tcggcaactc atggtgttac gcagttcnca aatctgactc ggtcagagtt ncgtangaag 360  
cacttggggg gttagaatgg gtttaacctt cataaanatg ccaacaaggc tccgattctc 420  
cctactggaa aatctcnctg aagattttga ttggtaca 458

<210> 2743

<211> 472

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-027-Q1-E1-H4

<400> 2743

ncctaccggt canaaatccc gggcccnanc acgcgtccaa agagtcacatca gcttgngac 60  
gaaagccttt ctaattccaa tcttcttcac ttgtatgaca cgttcgtcta ctcttgcgct 120  
tggtcgggttt tcttaggatt tttgcacaag aatgatcaac gcatgattcg gattccagga 180  
tagagaatcc atggctactt tcaatgttct ttgtagcaat cgatttagat tcaatggagg 240  
ttattctccg gagaaattta atagaaagggt gtcttcgagg agtagtgagc ttaatgtttg 300  
tgtctctaga atcaggactc aatcgtttag ttgcaggaga cttggtgggt ttatggaaat 360  
tggtgaaacc aagattaagg gttattaana gttcatggcg aatcctcgta ataaaatttc 420  
ctgtataacc anattaagcc acttgtgact gggtgantac ggagaataag ga 472

<210> 2744

<211> 438

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-028-Q1-E1-A1

<400> 2744

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tctattggaa agaaaaaaat ctttgaaaaa tggatcaaac agaggaacca ccactcaaca 120  
cacaccagca gcaccagaa gaagttgaac atcatgagaa tggtgcgact aagatgttta 180  
ggaaagtaaa ggctagagct aagaagttca agaacagtct cactaaacat ggacaaagca 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
nnnnnnnnnn nnnnncacca ggcgtaacag gtaaacctag agaaactaat gttccagcat 360  
cggaggaaat tattccacca gggacaaagg ngtttctgt cntgtccttc ccgantacac 420  
caanccact gaatccgt 438

<210> 2745

<211> 410

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-028-Q1-E1-A10

<400> 2745

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tatcggagga aaccaacgcc gcggcggaga cgatggtggt gatgatgaag gcaactcgag 120  
ggacgagaga tccagatcta cttgggctaa tgtggtttcc ggtgaggaag aggatcagaa 180  
tcgcgcggga ggatcgtcgc acggccgtcg ccagaattca gaggagaatc aatgggagaa 240  
gaagggcgaa aggcttccca caaggcattc acaatcacat gaggaggacc aggaagagaa 300  
tacatatgcg gctaaagtga gcgagaaaca agacttctcg gagagccagc aagangaaaa 360  
tgatggttgg gaaactgtgg gcaaaaagaa acctgcaang gaatcacata 410

<210> 2746

<211> 417

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-028-Q1-E1-A11

<400> 2746

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tgaacacaaa ctttgtttca atttagcggt tacagtcgca gacgcaatcg cggttaagtg 120  
aagcgcacg tcactttcca cattcatagt aatatgcaac aactgagtaa cagaaatttg 180  
taatcgaact cagatttcga agaagcagat ctcaaatgt ctggaaaaca gcaaaatcat 240  
cgttctactt cctccagacc cagatccaaa accctaatec tcatcggctc tctcttcacc 300  
gtctctctac tcgtcactct ctacacctct tcttctctct cccgagcctc catctccaat 360  
cccaaccggt cggaccgacc agagacgtcc ttcgttacct cgcctgagca attccta 417

<210> 2747

<211> 447

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-028-Q1-E1-A2

<400> 2747

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agcgaagaag cagaattaat caaagttcag agctttcact atgaatatcc caagtggaac 120

cttctcaaga tctgatcatt tccatgcttc aagtgatgct tctctctttt caagctctct 180

tcctcttatt caacaccaaa acatcaaccc tcgtgacagc taccatcagt ctgttgatga 240

aatggcttct ggcttagacc attttagtgg aggcattggc aatatgcttg atgatggtga 300

ctcacatcca atcggaaaca tgcttctga tgatgaggaa gagcttttct ctgggtctaat 360

ggatgattta aacttaagtt ccttgccagc tacgttggat gacttggnag atatgattaa 420

tcggtaacgg aggaggtcct gaantgg 447

<210> 2748

<211> 449

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-028-Q1-E1-A3

<400> 2748

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acggattagc gagaactgta tcgacgaaga aaggtaaaaa actatcggaa gatgaagatg 120

gagggagaga gatcgcaaaa tcgatgatta aagattcgaa gaagaactcg acgttgctcg 180

gtacttcagg ctttgttagc tccgaaagtt ctaagaggtt tacctctatt tgttctaata 240

gaggtgagaa aggaatcaac caagatcgtg caattgtttg ggagggattt gggtgccaag 300

aagacataac attttggtgg atgtttgatg gacatggacc atggggacat gtgatagcca 360

aaagagtaaa aaaatcattt ccatcttctc tgctttgcca atggcaacaa actcctgcct 420

ccttaacaac ctcccccgga aaggtncct 449

<210> 2749

<211> 416

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-028-Q1-E1-B11

<400> 2749

gggctgttac agtacttcct tccgtctccg gtctctctgc cgtcgcatct tcatcgaacc 60

tacgacgtct gacctccgcc tcgaaccatc gactcacggc gataaaatcc gtaacatcta 120

cttctttctcc tcttaccctt tctagtgggtg ttcaacggag acggaagaat aatgatgaaa 180

acagagccac ggtggcgaag gtgggtggaga atccgtattc gaaagtggag gcggcgcgtc 240

cggatttgca aaagaggttg tcagattttt tggaagaagc tagagagttc gtcggagatg 300

gaggaggtcc acctcgttgg ttctctccat tggagtgtgg cgctcaagct acaaactctc 360

ctcttctcct atacttacct gggattgatg gaactggact aagtcctaata cccna 416

<210> 2750

<211> 482

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-028-Q1-E1-B2

<400> 2750

ttentcgag gaccgtaccg gtengnaatt cccgggncga cccacgcgtc cancgcaact 60

gctttcacca accgtctccg atactggaaa cgagctccag taccacaaca agtcgacgag 120

aacctctttt tcaccgtcgg attagggcta atcaactgtg ccaacccaaa cagtccccgt 180

tgccaaggtc ctaacgggac ccgattcgca gcaagcatga acaacatgtc cttcgtgcta 240

ccacgaagta actccgtcat gcaagcatat taccaaggca cccaggaat cttcacaacg 300

gattttccgc ccgttccacc ggtgcaattc gattacacag gtaacgttag ccgcgggtta 360

tggcagccca taaaaggaac caaagcttac aagcttaagt acaaactctaa tggtcagatt 420

gtgttacaag aactagcat tgtcacgcca aagaatctc ccaagcatcc aaaacggtaa 480

cn 482

<210> 2751

<211> 436

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-028-Q1-E1-B6

<400> 2751

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actttttttt ttcttgatat tttcttgaaa agcctttctt cctgctgcaa ttatgaatga 180  
naannanaat accacaaagc anactttant aatacanaaaa aacagaactt gagtagtggg 240  
aantgagaaa tagaanaaat gcagtaaagc cagtgaattc acaataacat tttcatttcc 300  
attactggaa tacattntat tcagtcattc gtgagggttaa tgtacctgac atgaattatg 360  
ttattttgaa catgttatta taatgatttc aaattaactg tattgtttca agttttgtca 420  
ttaagtgcctt aaatgg 436

<210> 2752

<211> 417

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-028-Q1-E1-C11

<400> 2752

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atactacttg taataatctt ctccgtgagc ttcagaaaat atggggttgaa attggtgaga 120  
ctgagactga gaaagataga atgcttatgg aattagagag agaattgtctt caaatctatc 180  
aaagaaaagt tgatgaggct gcaaattcta aggcaaagct tcatcagtct gttgcatcaa 240  
tagaagctga agttgcttct ttaatggctg cccttggtgt gttaaaccatc aactcaccga 300  
ttaaactgga taaagggttca aaatcattga aagaaaagcc tgcagctgtg acacctccaa 360  
gttgaggaat tgagaattca aaaagaggag agaattgaagc agttttccga tataaan 417

<210> 2753

<211> 458

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-028-Q1-E1-C4

<400> 2753

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 accagttgta aatgcagtta ttgacgggga tgatatcata tacagagact atgtggatat 120  
 cagtatcgct gttggtacct ctaagggact tgtagtacca gtcataagag gtgctgataa 180  
 aatgaacttt gccgagatag agaagacgat aaactcactt gccagaagg caaatgaagg 240  
 aaccatatcc atagatgaga tggctggcgg atcattcacc gtttcaaagtg ggggtgtcta 300  
 tggaagtctc ataagcactc cgattaataa acccctcaa gtccgccata ctccggcatg 360  
 cactccgaat tgggtgtcacg ttccaaatgg gtaantaagg aaggaaaccg taattgecta 420  
 aaaccaatga atgttangtc ccaactttac gttaggat 458

<210> 2754  
 <211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 2754

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 aacgataaca ngaaacaaag ntacagtcag tactcagtag tttgagggca cctacggnaa 180  
 gcaagtaata ctacanaggg tactacgttc cagtgtttaa tgatgaaaca tcatcagtnt 240  
 aagcaaacgt gtttttcac atncaccgta tcaactttcac aagtggctgc antcattccg 300  
 cagcataacg ngaatngact tcgntgaagc agcatcaact tttgctcaga ggagcaaggg 360  
 ctaccacgag atgggggacc tctcattgct acgcctttca agagacatc 409

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 <211> 391  
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 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 ggaaggacag gttcctttga ctgttataca tgggccgcta gtggacgaag tacaccaaca 240  
 gattaatcca tggatatctc aagatcacta gagtttataa gggcaaggag catgtggaag 300  
 ttgaatttat tgttggtaat ataccaattg atgatggaat tggcaaagaa gtagtaaccc 360  
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 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-D2

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 aaacaaaacg ccaaagaang ctgaggaagg caatgtacaa cagaangtga aggtagaaga 180  
 gattgangtt aatacanaca ataaagaaca agatgggggt gttcctaaca agttatatgt 240  
 tgggggtant cttatcana gtacanaaca tgagattcgt agctacttta naantgtgg 300  
 agtcatcant aaagttgatt gcaaaatggt cctgaaaatg gggctttcag tgggtattgcc 360  
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<210> 2757  
 <211> 489  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-D4

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 cagcctccaa agcaggtgta tcgaattcag atatcaaca gatgtgtgaa gatcagaaac 180



ttgagaaagt ggtgttacaa gagctagagg ctattgcagc aaccaacaaa ttacanaaat 240  
 gggaaattcc tgctgccgtc aagttgttcg canagccatg gacacctgac aatggaatgc 300  
 tcacagaagc catgaaattg aaacgtcatg agattggcaa taagtttgca ccaagagatt 360  
 gaacgattgt tnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 420  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 480  
 nnnnngnaca 489

<210> 2758  
 <211> 483  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-D5

<400> 2758

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 accctatgac catcatagca ggttacagaa tggcttcgga atgtgctcgt aatgctttac 180  
 tgaaaagagt cattgataac aaggacaatg cagagaagtt taggtcagac ttgttgaaga 240  
 ttgcatgac tactttatgt tccaaaattc tctcacagga caaggaacat tttgcagaaa 300  
 tggccgtgga tgctgttttc aggctaaagg gaagcacaaa cttggaagct attcagatca 360  
 tcagaaaacc tggagggtct ctgaaggatt cgtttttgga tgaagggttt aatcctgaca 420  
 agaaaataag aattgggcaa gctaaacgca tatagaatgc aaatattccta agtaaccaat 480  
 acn 483

<210> 2759  
 <211> 481  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-D6

<400> 2759

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 cggttacaca ggcagccgca tttgatgctt tccggtggaa aagacgattt ggggtccatta 180  
 gctatgcttg aagatantgt gaagaagctc aagagtccta aaactttctca gacgcggaat 240  
 ctaactaaag ctcagataga ttctgcgta gattctctct ctgattgggt ttttgaatct 300  
 tgtggctctg tttctttatc tgggtctcgag catccaaagt tnanagcttt tttganncna 360  
 gttggtttac cgatnatctn aaggacaaaa tttgtcancg gaataatgga tttgaagtaa 420  
 gaacattcna naggcataagc tgaatccang aatccaacac gcaatgttcc ttcangaatg 480  
 g 481

<210> 2760  
 <211> 473  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-D8  
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 aagtctgaaa ttgttagatc gcagctatgt cgtactctga ctccgattcg tegtctcatg 180  
 gtggcgagta caagaatttc cgacagatta cgcgtgaacg actcttgtat gagatgctta 240  
 gatctgcaaa gacagggagc tcaaaatcca cctggaagggt actaatcatg gacaaactta 300  
 ctgtcaagat aatgtcgtac gcctgcaaaa tggctgatat cacacaagaa ggagtttcat 360  
 tggttgaaga catatttaga cgaagacaac cacttccttc aatggatgca atatacttca 420  
 tccaaccaac taaagagaat gtcacatgtt tcctgtcana catgtctggg aaa 473

<210> 2761  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-D9  
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 caatgcatgg agtcaccggc agagaacaaa gctatgcatt ctctgtcgag tctccggcag 120  
 ttccttccga ctcatcagca aaattttctc tccccgtgga caccgaacac aaagccaaag 180  
 tcttcaaact cttatccttt gaagctccac atatgagaac tttccatctt gcttggatct 240  
 cattcttcac ttgcttcatt tccactttcg ctgctgctcc tcttgteccc atcattagag 300  
 ataaccttaa tctcacaaga caagatgtcg gaaatgttgg tgttgcttct gtctctggca 360  
 gtatcttctc taagcttggt atggggagca gtttgtgac tcccttg 407

<210> 2762  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-E10  
 <400> 2762

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 tgatgactga cgtcaccgta gccgcggttt gctccggcct agacgattca tgttctttgg 180  
 ccgtctatct caccggagta caacaagtgg taaccatata tactnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnncgcttt aactaatctc ttttcgttgg 300  
 gtgttgatta ctctttaaac tttttatctt tttatctgat ggtgaaaatg atataaaaaa 360  
 aagacggtag gaatggggac aatggtaatg atgccantga ttggcaatct atcc 414

<210> 2763  
 <211> 404  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-026-Q1-E1-E11  
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 gatcaaactc ccggcgagaa gccggccgga gttaatagat tcgctcttca atgtgctatc 180

gtcgcctcca tcgtctccat catctttggt tacgatactg gtgttatgag tggagcgatg 240  
 gtgtttatag aagaagatgt gaagacaaac gacgttcaaa tagaagttct cactggaatt 300  
 ctcaaccttt gtgcccttgt cggatcattg ctgcgccgaa gaacgtcgga cataatcgga 360  
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<210> 2764  
 <211> 458  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-E3  
 <400> 2764

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 cctccggaat ctttctcaag aacagagcaa atgccgcttg ttaggctcca agttaggaat 180  
 gtctacggtt tagggcaaaa agagcttcac aaaaagtcg accgtgaaga ccctaaagcg 240  
 attctcgacg acgtcgccgt ttctggactc gtcgggatct tgcgtcaact cggatgatctc 300  
 acagaattcg cagcagagat attccatgga atacaagagg aggtaatgat aacagcatca 360  
 aagaagcaac aaattgaaga tgagattgaa gcaaatagaa gctaaagttc ctacaatcca 420  
 aaagacagtt gcttgacaaa acaaatcaca ttcatttt 458

<210> 2765  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-E4  
 <400> 2765

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 gttttacagt gaatcgtgcc ctaatgcaga gactatcgta gaaaacctgg ttcgccagca 180  
 gtttgctcgt gacccttcaa tcacggccgc cttgacncgt angcattttc acgactgttt 240

tgtccagggc tgcgacgctt ctctctcat agaccaacg acgtctcaac tatcggaaaa 300  
 aaacgccggn ccaaacttta gcgtgagagg gttcgagctg atcgacgaga tnaagacggc 360  
 actcgaagct caatgtccct ctacggtctc gtgctccgat atantcacgc tcgccatacg 420  
 tgacgccgt 429

<210> 2766  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-E5  
 <400> 2766

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 agaaggaaaa gaggtccta gctcaaggta gcttgtctcg cccaggaggc gggaagagtt 180  
 gagaacaaag tggcgaacgg gtgcgtaagg cgtgggaatc tgccgaacag ttcggggccaa 240  
 atcctgaaga aagctaaaaa gcgctgtttg atgagcctgc gtagtattag gtagttggtt 300  
 angtaaaggc tgaccaagcc aatgatgctt aactggtctt ttcggatgat cagccacact 360  
 gggaactgag acacggcccc gactcccacg ggggggcaac aatggggaat cttggacaat 420  
 gggcgaaaac ccgatcagca atatcccggt agtgaagaaa gggaatg 467

<210> 2767  
 <211> 432  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-E7  
 <400> 2767

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 aagcactcag tcttacttac tacgaccata cttgtccaca agccgaccac attgtaacca 180  
 atgcagtcaa gaaagccatg tcaaacgacc aaactgtccc tgctgcgctt ttgaggatgc 240

atttccacga ctgtttcgtc agaggatgtg atgggtcagt tctcttagac tctaagggga 300  
agaacaaagc agagaaagat ggacctccta acatctcact ccatgcattt taagtgattg 360  
acaatgcaaa agaangnatt aagaaagaac aatgtcccgg tatcgtctcc ttgcgccgac 420  
attccttcac tt 432

<210> 2768  
<211> 482  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-026-Q1-E1-E8  
<400> 2768

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ggattttcac tcttctgctc naaagggcag tgcttgagaa tcattgaaga angtgatcgc 180  
tggtgctgtt ttgataactc aaagccgttt tgctgaaaga gggttaccaa agttagaagc 240  
tcaanaactt ggagctgtgt cttctttttg tancatgcca tattttattc agaggctttt 300  
caatacttgc aagtcatttc tctcacctaa tggtcctgtg tctgaggagg ccttanacaa 360  
ggttcgcaat gtcttgaga aatcaagcc gtctgatgtt ggtctcgaac aggaagctca 420  
attggtgcgt aattggcctg gtcttgggaa cgangcgtaa tggaaaccat cattctctgg 480  
ca 482

<210> 2769  
<211> 406  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-026-Q1-E1-C9  
<400> 2769

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tctatccca gagtagacat caggagaaga aagatgctga gatacttgct gaggctaaaa 180

gaatcacaga gatgcgattg gccgcacgtc gtgcagaaga acctgatgtg tctgcgaatg 240  
agaacgccgg tcttgataaa gctgatgggg ttgttccagg gcgtagtgta tctccaacat 300  
ccaatttctca acttcctgct actgctgtgg ctccatcaac actaactatg gcaagattat 360  
gcctctaccc ttgcttctct gcgcatgctt catgtatact tgagaa 406

<210> 2770  
<211> 400  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-026-Q1-E1-A11  
<400> 2770

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ttatcgattc gttgaagagg agtggctgta atctaacata tatattaaat acacatcatc 180  
attatgatca cactgggtggg aatttggaat taaaagacag gtacgggggca aagggtgattg 240  
gctcagctat ggataaagac cggattcctg gaattgatat ggccttgaag gatggtgaca 300  
aatggatgtt tgctggccat gaagtccatg ttatggatac tcttggccac aaaaaaggcc 360  
atatcaagct tatacttttc aaggatnacg aacgattttc 400

<210> 2771  
<211> 484  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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ccatggaatc tccgaagaat tctctgatcc cgagcttctt ctattcatca tcttcatctc 180  
cgagatcttt cctcctcgac cagggtgctca attccaactc caacgctgca ttcgagaaat 240  
ctccttctcc ggccccgcgt tcctctccta cgtcgatgat ttctcggaag aatttcctta 300

ttgcatctcc caccgagcca gggaagggga tcgagatgta ttcacctgcc ttctacgctg 360  
 cttgtacctt tgggtggaatt ctcanctgtg gncctantca catgaacgtg antcctcccg 420  
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 tttt 484

<210> 2772  
 <211> 489  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-A6  
 <400> 2772

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 agatgatgtc agatgctctg aatcgctaca atgggggatt tgttttggaa tctttgggtca 180  
 gcacttgctt tcctggatgt gaagtacctg catcattcga tcaccaagcc tatggagcat 240  
 tgttacagac gaaattacct cggcactggg gtgatagtag gcttactggg atagctttat 300  
 gcgctgttan attgtttccg gactaacaac atcaaangca atccgttccg ggggtgaaatg 360  
 cacttgtgaa gtttccggaa ctgaaagaat tgggccaatg gttatcaagn cttttaagtt 420  
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 agntccgaa 489

<210> 2773  
 <211> 403  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-B11  
 <400> 2773

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 cagcctcgag cctttgcaaa gctctgattc gactccaact aaaggcgatt acttcgccgc 180



gatcaaccac gttgtcaata tcgtccgccg cgagattcac ccggagagat cattgaacag 240  
tctccgtcta cctgtaacct ccgaattcgt gttcagagtc ctccgcgcaa cttctcgttc 300  
ctccaacgat tctctccgat tcttcaattg ggctcgatcg aaccctagct acacaccaac 360  
ctccatggaa tatgaagagc ttgctaagtc ctancttcac ata 403

<210> 2774  
<211> 403  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-026-Q1-E1-B12  
<400> 2774

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cgatatggct cgctcgtttg gagctaacag taccgttggtg ttggcgatca tcttcttcgg 120  
atgtttatctt gcgttgctct ctgcaataga agaggctacg aagttaggat cagtgatagg 180  
gatagatctt ggtactactt actcttgtgt tgggtgtttac aagaatgggtc atgtcgaaat 240  
tattgccaat gaccaaggaa accgtattac accttcattg gttgggtttta ctgactctga 300  
aagactcatt ggtgaggctg ctaagaatca agcagctgtt aatccagaga ggactgtctt 360  
cgacgttaag agattgatcg ggcgaaaatt tgaggataaa gag 403

<210> 2775  
<211> 502  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-026-Q1-E1-B2  
<400> 2775

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atcgaggaa ctggttacat cgggaaattc ctagtagaag cgagcgccaa agctggccac 180  
tccacattcg ctctcgttag agaagcaact ctatccgatc ctgtcaaggg caaaaccgtc 240  
cagagtttca aagatctcgg cgtcacaata ctacacggag atttgaatga tcacgagagc 300

ttagtgaagg ctattaaaca nggttgatgt tggatgatc caaccgtttg ggaagcaatg 360  
 caaaatcctt ggggttnaaa ccaaagatta atttccgcca taaaagaan cccggttatg 420  
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 caattgccgg ttgaanccaa cc 502

<210> 2776  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-B3

<400> 2776

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 gccggtgaaa tgcacgccg atgaaagatt aacagagatc tccatggatt tcaccaaatt 180  
 aggattccca gaagaagatg aagaaattaa aaaattggag agatcgtgga gtaagctcnn 240  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnngtttt cgtttgcttg 300  
 tgtaaacgga gaaggatctc caattaccgc tgatgaagct tttgaagatg gtcaaattcg 360  
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 aaacgaca 428

<210> 2777  
 <211> 474  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-026-Q1-E1-B4

<400> 2777

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 agaaaataag aagaagaaac actaaacaaa aaagtatggt ggaattggag attgtgtggt 180  
 tggttagagg cgcttgatc actgtttgga tcgtctctat acttcctttg gtgattgctt 240

cgataccac ttcaaagctc aactcttttc gtgaactcgt tttgagtttc gctggtagag 300  
gcaagattct tcacccttct tctcaaaaag tttacaattc ctcaaaaatg ctttgcacac 360  
ttttatgtta ntggantggg gtggacaact cccccgcttg ctgcaacttg ggtggtagatgc 420  
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<210> 2778  
<211> 427  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-026-Q1-E1-B6

<400> 2778

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atagcatagc gatcatcaaa tgtcaccagg acgaagtgtt ggtgctgccc gaaactgcta 180  
aagtgcttgc gtattccaag aactacgagg tggagatgta ttcgattgag gatcatttgt 240  
tctgtatcca aggacatcct gagtataaca aagagattct cttcgagatt gttgatcgtg 300  
ttcttgctct aggctacgtc aagggttggtt ttatttctct tttctcttaa ccttgatcaa 360  
tttacagaca acaataacat tgaaaaactt ggatatagta catatgggtg ggttttggat 420  
taaataa 427

<210> 2779  
<211> 403  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-026-Q1-E1-B9

<400> 2779

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gtgtggatcc tgtgtggcat ggtaccgcga gtgagctacc attcctaaat tcgcttaaga 180  
tgaaaatgtc aattcttatt ggagttgcac aaatgaacct cggaatcata atgagcttct 240  
ttaatgcaaa attcttcaaa agtgctgtaa acatatgggt ccagttcgtt cccagatga 300

tattcttgaa ctgcttggtt ggctatcttt cggctctcat catcataaag tgggtgactg 360  
gttctcaagc agatttatat cacgtaatga tctacatggt tct 403

<210> 2780  
<211> 423  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-026-Q1-E1-C5  
  
<400> 2780

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aagcccgata gacagtttta taacgtggtg atcgatacct ttgggaagtt taattgtctt 180  
gatcatgcc a tgacgacttt cgatagaatg ttaagcgaag gtattgaacc agatagggtg 240  
acttgggaata cgcttattga ttgtcattgt aagcatgggc ggcatatcgt agcggaagag 300  
atgttcgagg cgatggagag gcganggtgt ttgccttggt ctacaactta taacattatg 360  
atcaatagtt atggtgatca agaaagatgg gatgatatga aaagantggt gggaaagatg 420  
aag 423

<210> 2781  
<211> 485  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-026-Q1-E1-C7  
  
<400> 2781

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acggatcccg gttaactccc accaaacact ggtcgcagaa tcggtgataa ctcgggagaac 180  
actcggtgcg atcaccgcaa ctccgagttt tcataaaaat ccggtggtga ttcgacggag 240  
gatcaaatga gagagagtta cgaggaactg cgtcagaatt gatcggnnnnn nnnnnnnnnn 300  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360

nnnnnnnnta gtgaagttca cagggtccggc gatgggggatg tggatttgtg gaccgttgat 420  
gagtctcatc gacacgggtcg tcatcggcca aggaagctcc atcgaactcg ctgctcctgg 480  
accgg 485

<210> 2782  
<211> 386  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-026-Q1-E1-C8  
<400> 2782

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agacgacgan ngctagtagc aacgaataag cctgtgaaag ctgctgctcc aacgaanaag 180  
attacaactt cctctcacc tacctatgag tgagatgatt aaagatgcga ttgtaacgtt 240  
gacagganag aactggatcn agtcaatann cnattcagaa attcatacga ggagaancat 300  
aaatcactgc ctctacttt tangaanctt ttgcttgtga atctcanaga gacttgttgc 360  
ttctgacaaa ttggttaaag tcaant 386

<210> 2783  
<211> 487  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-025-Q1-E1-H7  
<400> 2783

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acaaagataa tcatgtggct gcagtggagt atgttgatga tatgtactcg ttctataaag 180  
aagttgagaa ggagagtcag cctaagatgt acatgcacat tcaaactgag atgaatgaga 240  
agatgagagc gatcttgatt gattggttac tagaagttca catcaagttt gagcttaacc 300  
ttgaaactct gtacctcact gttaacatca ttgatcgatt cctctatgtg aaagctgttc 360

ccaanagaga gttgcaggta gtgggaatca gtgccttcca aatatgaaga natctgggnc 420  
acctcaagtt aacgatctgg tgtangtcac gggcaatgct tacagttaca accagatttc 480  
nagggt 487

<210> 2784  
<211> 477  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-025-Q1-E1-F2  
<400> 2784

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aactcggttg gatcgcagggt cctacagtga tgttggtgtt ctcttttgtc acttactact 180  
cttcacgct tcttaacgac tgctacagaa ccgganatcc tgtctctggg aagagaaact 240  
atacttacat gggcgtgtc cgattaatcc taagtggctt tangttcaan gatttgtggg 300  
ctgaatcagt aattgaatcc gtttggtatc aangtcnggt acacaatccg cagcatctaa 360  
aaantatgat ggcgatnaaa aagggtccaaa ctgtttccaa caagaancng aagggaaaaa 420  
accgtgtca natgtcnanc aatccataca tgatcatgtt tgggtgtgacc caaaatn 477

<210> 2785  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-025-Q1-E1-F4  
<400> 2785

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gancggggaa tgggagtttt ttgttgctca gtcatatagt aaaaatttag gtttgtatgc 180  
agaaagaatt ggggcaatca atgtcgtgtg ctctcagct gatgctgcta caagggtcaa 240  
gagccagttg aaaaggattg ctcggcctat gtactcnaat ccaccagttc atggggcgag 300

aatcgtggcc aatgtagtgg gtgatgtaac tatgttcant gaatggnaag canagatggn 360  
aatgatggca ngaagaataa aagacgttag acaanagctg tangatancc tcgtttcaaa 420  
agacaa 426

<210> 2786  
<211> 469  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-025-Q1-E1-F5  
<400> 2786

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tctgagcttg gagaatttgt ggagtatgat cttgacaatg aggatgaaga ctggctttat 180  
gagtttgata aggataagaa agaacttcca cctgaaaagc ttgagatcat cattttttaa 240  
ctagaggtgt tggatcacia gacgcgggaa agagcaggag ttattacacc tactctcggc 300  
tctccagttc ctgtgctttt gcagtttgat gctgcttctg atgtgctgca agtactgtcc 360  
attaattatg gaaccttcca ggcgatcttc aactactgga aagaaaagcg taaaagatgg 420  
cagaagccta tcttacggcg tttacagcct cccccaacgg ttaatgaca 469

<210> 2787  
<211> 422  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-025-Q1-E1-F7  
<400> 2787

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cggcgtgaga atgacgtcac cagaggcgctc ttcaacatcc tccctcgcca ccacaagtgt 120  
ccacgtaagc gctctcgang gactcgtgaa cgtgaactct ctcttcacca tcgccgtctt 180  
cgttggctct tccctagcga ctccaggaca anacagcctc taacaacgat ccagctgcca 240  
cgcaagtgct gacgtcgcca agaagctact ggtcttcgaa gtcntctcct tcagcttctt 300

cctcttctcc tctcttgtn ctcaggtct taagcttgcc ttaaagcttc ntaatagcaa 360  
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 ga 422

<210> 2788  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-025-Q1-E1-F8  
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 aanttcttga actcgagtgt tggnttcggt gggttcgtgtt tcnanaanga cattctgaat 180  
 cttgtctaca tctgtgagtg naacggactc ccggaagtgg cagagtactg gaagcacntc 240  
 atcaagatca atgactacca gaanagccgg ttcgtgaacc gtgttggttc ntccatgttc 300  
 aactctgtat caanacaaga agattgcggt tctcggtttc gcattcaaga nagacaccgg 360  
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 aan 423

<210> 2789  
 <211> 396  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-025-Q1-E1-F9  
 <400> 2789

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 gttttcgagc ttatggaatc tgatttgcac caggttatta aggcaaatga tgatttgact 180  
 cctgagcatt atcagttttt cctctatcag cttcttcgtg gcctcaagta tatacacaca 240  
 gctaattgtct ttcacgcgga tcttaaacc aaaaacatat tggcaaatgc tgattgcaaa 300



ctcaagatct gtgattttgg acttgcaaga gtcgcattca atgatacacc gactgcgata 360  
 ttctggactg attaagtanc tactcgatgg tacaag 396

<210> 2790  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-025-Q1-E1-G1  
 <400> 2790

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 tgaaaaaagg gtacgtggga atacacagtt ctggattcag agacttcctt ttgaaaccgg 240  
 agcttctcag agctattgtt gactcaggat ttgaacatcc atctgaagtg caacacgaat 300  
 gtatccctca agctatcttg ggtatggatg ttatctgcc aagcaaagtct ggtatgggga 360  
 agactgctgt gtttgtcctg tctactctac aacagattga accatctcct gggcaagttt 420  
 ctgnacttgt ccttgtg 437

<210> 2791  
 <211> 454  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 2791

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 cagaagggat aatccatcta aaggggagata cagagagttt tatcagtgtg attttgatat 180  
 cgctggtttg ttccaaccaa ttggaccoga ttttgaaatt gtcaagatat tanntgaact 240  
 cctcgatgag ttagaaatan gagattatga ggtgaaactg aatcaccgca agttgcttga 300  
 tggaatgctg gagatatgtg gaggaccacc tgagaaattn anaaccatct gttcnagtat 360

ccacaagcta gacaagcaat cgtttgagca antgaagaaa gaaatggtgg anganaangg 420  
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<210> 2792  
 <211> 458  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-025-Q1-E1-G11  
 <400> 2792

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 tctctaccct tctctcgtec ttcgtcttcc aagttttcca cgtcgtcttc tgctccggcg 180  
 tcgcggcagc aatcggggtc ggtgtggact ctctccgaca cagaggtaga gaagcgggag 240  
 tggaagcgag attcgtaaga tagagacgag attccttgtg cttcatcctt tgacgagctc 300  
 ttaaaacagc agaagccttc cgaggatgat ctcaaagata ttgattgcgg cgaggatttt 360  
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 gangaagatg aagtatgata aaagttgcac taagggaa 458

<210> 2793  
 <211> 389  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-025-Q1-E1-G12  
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 agacggagat ggtctgatca gtggtgccga agctgttggg ttttttcaag gatctggttt 240  
 gtctaagcag gttctcgccc agatatggtc gctttctgat cggtcacaca gtggtttcct 300  
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atntgacacc tgagaatggt aatgcaaca

389

<210> 2794  
<211> 470  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-025-Q1-E1-G4

<400> 2794

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aatggctctt gttcagcgga ttccaatttc ctctccagt attcggaatt ggcaacaagc 180  
gaggaccaat ttgactccta tttgttggtt acattacaat actgcatctt cttcttcttc 240  
accctttaca gagaagcact ctgtggagag ataccaaagg gatcaatggc tgtacaaagc 300  
ggttgaacca acgccaccat cgactccatc tccatcgcca tttgaagatg aagtctttgt 360  
tagggaaaac gacattgcat cgcagctgcc tgagctgaag aagcttttgg cagtgtctgaa 420  
agagaagaga gttaaaggat gcaaagggtg tgattgtgga ccaggagatg 470

<210> 2795  
<211> 391  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-025-Q1-E1-G9

<400> 2795

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aaacccacct gaaaactacg aatcttggtc tggcaaaaac cgtttccttg ttcacgacac 180  
tctctatttt agctacgcta agggagctga ctcggtgcta gaggtgaaca aggctgatta 240  
cgacgcttgt aatacaaaga atccgatcaa aagagtggac gatggagatt ctgagatctc 300  
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<210> 2796  
 <211> 469  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-025-Q1-E1-H2

<400> 2796

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 cttcaacttt ggaacacaaa aagttgtcaa gaactggcag ctattccttt gtgtttgtgt 180  
 tggctcttgg gctggactca ttattggttt cgtcaactgag tactacacta gtaacgccta 240  
 cagccctgtg caagatgttg cagattcatg cagaactggg gcagctacca atgttatctt 300  
 cggccttgct cttggttaca aatccgtcat tattccaatc tttgctattg ctatcagtat 360  
 attcgttanc ttcagctttg ctgctangta tgggtgttgc gttgctgntc ttggatatgct 420  
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<210> 2797  
 <211> 440  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-025-Q1-E1-H3

<400> 2797

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 aagctggcgc catgaatgcc ctgcaaggcc gtgaggggaag caatgtgttt tttgatggat 180  
 cctcagattg gaaagaaggt ctgctatggt cagttccctc aaagggttga tggcattgac 240  
 acaaacgatn gttacgcaa cagaaacaca atcctccttg ataacaataa taaaagncca 300  
 aatggaatcc aaaggccaat ttangttggn aactgggtgt gttttcaaaa caaaaactcc 360  
 gtaanggtaa taaacaacca aaagggccna aacttcaaaa gataanaaac ngtggttgtt 420  
 gnccttgctt tggggccccc 440

<210> 2798  
 <211> 386  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-025-Q1-E1-F12

<400> 2798

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gattagcgga ggcagcgaag gaattctccg atatgacact cgccggcgta gagcctaacc 180
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tgggcgattt gtttcatggg tatgcttgta aacttgggtct tgatagaaac catgtcatgg 300
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<210> 2799  
 <211> 470  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-D2

<400> 2799

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ttgattaagt aataaagatg aaagggtggaa gcatggagaa aattaagccg atattggcga 180
taatttcact gcaatttggg tatgcaggca tgtacatcat caccatgggc tcgttcaaac 240
atggcatgga ccattgggtt cttgctacat accgtcatgt cgtagccacg gttgtcatgg 300
ctccctttgc tctcatgttc gagaggaaaa ttaggcccaa gatgacacta gcaatattct 360
ggaggcttct tgctcttggg atattanagc ccctcatggg accaagaatt tgtactacat 420
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<210> 2800

<211> 461  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-D3  
  
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 aatcatgatc gccgccgttt acactcnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnncaaagcc acgatttcaa tctctcccca aaccttaaac cgatccggcg acatagtcgt 240  
 gatcaaattg tccggcgctg aatcacctgc cgatctcgac tggtaggaa tctactcgcc 300  
 accggactct cctcagatc acttcacggt ctacaaattc ctctccgatt caccacgtg 360  
 gcaatccggg tcgggttcga tttcacttcc cttaaccaat cctccgatca aattacactt 420  
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<210> 2801  
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 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 aaaaaaaaca ccaaaactaa agagaaatct cgttatcact ctcttgccaa aactcacata 120  
 catataatca tatatcatcg caaaatgtct tgcctagaga tttataacaa agacacgatg 180  
 aagaagaaag aaggagaaga agaaacaaga gatgggacag tggattacta tggtcgtccc 240  
 tctattcggt ctaactcagg ccaatggggt gctggcatcg tcattcttct gaaccagggg 300  
 ctgggctaca ctagccttct ttggagttgg agtgancttg gngctcttcn naacccgcgt 360  
 tttgcagcag aacaangcag acgcagtaac aacttttagca atgggccagg gacngtttaa 420  
 a 421

<210> 2802

<211> 438  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-024-Q1-E1-D9

<400> 2802

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gtgaattcaa ataaagacga agacaaaaag tttgagactt tatctctact ttgacccgac 120  
cagcgaaagt gtaaattgaa agatagatag aaagaaagag ccaactttta aagcttagcg 180  
gttgatttcg aaatctcgtc gccggcgctt ggagtccttt cgtcggacaa caacaagaga 240  
aaagagattt gtggtgttct tctgcttaga attgttgttt tccatctccg gcagtgagat 300  
ttggtggaaa aattttgatt tgtgatcgat ggtaaggaa acagagtact acgatgtgct 360  
cggagttagc ccaactgcta cagaatctga gattaagaaa gcttactaca taaagggcac 420  
cccaagttca tcccngat 438

<210> 2803  
<211> 480  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-024-Q1-E1-E1

<400> 2803

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ctcattctcc ttctcgatct ctctttttac tcaccattcc aaattcccta aaccccgatt 120  
ttggggaggt tttaaaaaat ctatcgacgt agttggatac agttcttcga ttctgattcg 180  
attttaattt tatgtcaagg gaatttcctt agtattcgca gagtgtgatc atatgaaatc 240  
tcgagcgagg cagtgtctgc tggtttgttt gctctgtctt tccttaacga atctctccta 300  
tgagaaaaat aagttcagag agcgtaaagc caccgatgac gagctgggct accccgatat 360  
tgatgaagat gctttattga atactcaagt gcccgaataa attgganctg cgatggcaaa 420  
ctgaaatcac ttccaagcgt taagctaanc cttgattgct gaataacatt ggaaangggg 480

<210> 2804

<211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-E10

<400> 2804

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tcgtcatcat tgctgcaatc acgtctacac tcttcctgag aaccgaaatg aacacaagaa 120
acgagggtga tgctaattctc tacataggag cattgctatt tggaatgata atcaacatgt 180
ttaatggggtt tgcggagatg gctatgatgg tttcaagact ccctgtgttc taaaaacaga 240
gggatctctt gttttatcca tcctggacct tctcacttcc cactttcttg cttgggattc 300
caagctcaat attagaatcg acggcttgga tgggtgtgac ttattactcc attgggtttg 360
cacctgaccc agccgctttc ttaaagcant tcctccgggn gttccggatc aacaaatggg 420
ntgcaacc 428
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<210> 2805  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-E11

<400> 2805

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360
nnnnnnagcc tcaaaagaac aanaacttgt gaaccaagaa aaggttgagc aacccctta 420
aaaacngggtt ttcggtc 437
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<210> 2806



<211> 494  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-E3

<400> 2806

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ggatcatgcg aaggaatgct cctcaggcgg aggatactat cgctctctgc gtcgtcgttc 120
agaaacttta cttccggtaa caacggcgac gctattccgt tctctacctt cacgaaacct 180
tcttcttcaa tcgctcccgg agatttcttc gtccgtgaat ggaaagactg gtttaagcat 240
cgagatgtga aacagagcca ccaattaatc gatcgaatct ttgacatcct tcgagctcct 300
tctaacgatg gagacgatag agctttttat ctccacctct ccaatctccg acttcgtctc 360
actgagaaat tcgtcctcga cgtgctttca cacactcggt aagaataatc ctctgttggt 420
tcaaaattcc tccaattggg gctgctccgt cagcctgggg ttatcatcaca cggcgtgcta 480
aacnnttttt tttt 494
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<210> 2807  
 <211> 487  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-E4

<400> 2807

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tttctccgct gtttcgtcgg caaattttcc catttttgat tccgaagata atagatatta 120
tcaacagagg ataaggataa aacccagaac aatcattata atttagtggt gaagttgacc 180
aaatttataa actgatccaa ttttaaaatc taagagatat ggagaacatg gacgatttct 240
caccggagaa tgtttttagca ccaccaccac cacctcctcc aatgaagaag tcaagcatct 300
gtttatgcaa agaagcaata gctttgtttc taaagctacg agagattcat gggatcgtat 360
gttcgacgaa gctcatggag cctgatgttt tggattcata ctgatgataa tgggttggat 420
ttacgcacat tctaattgtca tccggatngc ttcagatgta tccagaagga atggaaattt 480
```

gggaaaa

487

<210> 2808  
<211> 399  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-024-Q1-E1-E5  
  
<400> 2808

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cctccatfff tctcaaggca atctctctct ctctgcctca tctcanaaac ccattacacc 120  
aaaacctcat cgtanagaga gaaacacacc aaccattggt acactctaag agaagagaag 180  
agaganggaa aaatggacgg tgtatcacca aagtttgtgt tgccgngac attcgacggc 240  
gtgaggatng anatcacagg caaactaggc atgattggga gcttgtaaaa gcaccagtga 300  
tngtcccncf tctnaattag cgtttanafc cgtttgccta agtctgtcaa gcnttaagtg 360  
aaagggttac attgggaatc gtcacccgfc tctcaaant 399

<210> 2809  
<211> 420  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: LIB22-024-Q1-E1-E8  
  
<400> 2809

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aagaatffff ttacttttgt tctagttttg ttgagaaaaa gatgcatccg atcttcgatg 120  
ccatccttca aaatgacctt ccagcttttc ttggttttgt ggaagcgaga gaatcttccc 180  
tgaggagag aagcgaggaa cagaacacca acaacacggt tttgcacgta gctgcaaagc 240  
tcggtcaccg agaactgggc gccaaagatta ttgagctccg accttccctt ctctcttccc 300  
gtaacgcgta cggagacaca cttttgcata ttgctgctct tcttggagac taaacatagt 360  
tatgcagatg ttagacactg gattggaact atattccgca cgcaataaca aggaacccaa 420

<210> 2810  
<211> 430

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-F11  
  
 <400> 2810  
  
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 attaatctta ctgcgcggaa cttttctctc tcacaancgc ttcaaacaaa atttctaagt 180  
 ttatccgaat atgaataaac tagttgtaga aatcgttgac gctagcgatt tgatgccaaa 240  
 agacggacaa ggctcagcga gtcctttcgt agaagttgaa ttcgacgaac agcgtcagag 300  
 aacgcaaacy cggtttaaag atctaaaccc tcagtggaa gagaagttgg tttttaacgt 360  
 cggtgacttg aaccgtttga ataacaagac ggtcgacgtc acngtttacg atgaccgccg 420  
 tgataatcag 430

<210> 2811  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-024-Q1-E1-F6  
  
 <400> 2811  
  
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 gttcctctcc tctgcctctc cccagcgcgg cccatcttca gtcccctacg aagagtccaa 120  
 caagtgggtg atccggcaac atctacttaa cctaactctt tcttaccctt ccttagagcc 180  
 caaaacggca tcgtttatgc acaacgatgg tcgctccgtc aacctccttc aagcagatgg 240  
 tacgattccg atgccttttc atggagtcac ctataacata cctgtgatta tctggctcct 300  
 cgagtcatat cctcgtcatc ctcttgcgt ctatgtgaat cccaccgctg atatgatcat 360  
 caagcgacct cagcacatg tcactccttc tgggtctcgtt tctctccgta cttcaagaa 420  
 aaaatttttg 430

<210> 2812  
 <211> 421  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-024-Q1-E1-F7

<400> 2812

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tgtgggtggct ggcgcgcgacc ccatttccttt tatctcgggg aaatccctga gtggcaaaac 120  
tgttttgcatt atgtgaagga tgatgtcatt catattcata gacactgggt tggaggacag 180  
aagaccaaag tctttcctct aaatttgcatt acacagtttc atggcagaga attgcattcc 240  
ttatgcttca tctctacaga tacaaaagcg ggattcgtt ctgaagaaag taaaatatct 300  
gatcgtgcta gttggattgc aacagggtgt gaagatggat ctgtgagatt gagtaggtat 360  
gcatctgant ttggaaattg gtcaacatca gagcttttag gagaacatgt tgganggccca 420  
a 421

<210> 2813

<211> 450

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-024-Q1-E1-D12

<400> 2813

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ttctcgtggg aatttgggta tcgatctacc tccggaaaag gtgtttttgt tccaaaaggc 120  
tgctctttac aagtgtaca tggctggaaa gcctgccgtt cttactcgtg ttgtagacag 180  
tatgacagac aatctgcggc caactcgtgc agaaggcaac tgatgttgcc taaatgctgt 240  
tttnagatgg gaattatgca aatcctcctt ggggtgccga gaccctccgt gggattggaa 300  
ccctgggtga aaaccaataa tcaactgggt gggtaaaaat ccggttgtga aggcanaaaa 360  
aantttcaac caaaaatttg tccttaaaaa anacnggtca antnagnttg ggaaanfaat 420  
ggaccacttg gganccaatg cttctccggc 450

<210> 2814

<211> 436

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-024-Q1-E1-B12

<400> 2814

gcccacgcgt ccgccccaaa gcatacaata caatgtctac tcttgtttta ttctccaac 60  
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ctcaagacca aggtctctacc ctaagaatct tccacataga cagcccttgc tcccccttca 180  
aatcatcatc cccactctca tgggaagcgc gtgtgtctca gacgtgggt caagaccagg 240  
cccgctctca gtacctgagc agcctcgtcg ccgggagatc tgtagtcccc attgcctcag 300  
ggcgtcaaat gttgcaaagc actacataca ttgtcaaagg ctttgatngg tactccggct 360  
caagccgctg ctcttagcca tggacacgag cagtgcggtt ggcttggatt cctgctccgg 420  
ntgcgttgggt gtcctt 436

<210> 2815

<211> 490

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-024-Q1-E1-B3

<400> 2815

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cacaatcctc aagctatctc ctttgtgtcc ataatcgaaa cgctttttgc gatttatcct 120  
aatctttttt ctatcttctg ctacaaattt ggttcttttt tggttgaatt tggataaaat 180  
cataatctcc tcttcaattt tcttgtgaaa tgggaagtttc agtgattgga aatcctcaag 240  
cgaggatctg cagagcagaa ttagcttaca gagagcttgg atttagattt ggctctgatg 300  
taatctccgg tgaatcgaga aataggggta gtttctgcaa ccaaagctct aaatggaaaag 360  
agatcgcgat acgttgctct tcgagatctg tcaaagtga agccatcgtc tccgatgacg 420  
cttctccggt tccaaatcca ctccaaaatc taaatccgct ccgaagaagt ggtaaaaaat 480  
tttttaaaat 490

<210> 2816

<211> 474  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-024-Q1-E1-B4

<400> 2816

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atgatcttct cctccgatca ttagtctctt taatctttct cagcctcttc ttgttcgtga 120  
tctctcttcc tccggaaaaa gatgtcggcc ggtaacggaa atgctactaa cggtgacgga 180  
gggttttagtt tccctaaagg accgggtgatg ccgaagataa cgaccggagc agcaaagaga 240  
ggtagcggag tctgccacga cgatagtggc cgcacgggtga atgccacaac catcgatgag 300  
cttcattcgt tacagaagaa acgttctgct cctaccacac cgatcaacca aaacgccgcc 360  
gtgctttttg ccgccgtctc cgaagaagag cgtcagaaga ttcaacttca atctatcaag 420  
tgcacccggt aacatcggtta acgaagagan tcaaggaccc aaaaaaang gggg 474

<210> 2817  
<211> 433  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-024-Q1-E1-B7

<400> 2817

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gaaacgtcac gaacgtgtga attgggttaa aaaattcatc tcattgatcc aaacttgaaa 120  
ccctaatttc gaatctcttt gctgatttgg tgagatctca atttcggaaa gaagatgacg 180  
aaggatttcg cagttccacc tgtagttttc cctccgggtg gatcttcagg cggtgctaata 240  
gtccagcaac gaagattccc agcgacaccg tttcaaccgc cgcgtccctc ttcttccgca 300  
atccctttca tgtcattcga cattggatcc gcagccgcgt ctcccgctac acctgccgga 360  
ccattcggcg ggacatcgct tcctcttctt cntttggtgg aggtcacctt cgtttgaaga 420  
aatggaaaag ggg 433

<210> 2818

<211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-024-Q1-E1-B8  
  
 <400> 2818  
  
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 ctttcttttc ttcaacgatt tctctcccc tcttgcttta gctgatcgat ttcgaaaaat 120  
 tgagcttgcc aagtcaagca accagatttt gttggttgta tttagtatag gatccaaata 180  
 caatggatga aaaccatagg aatccatttg caaatgcaag tacaagtgct agagcaagcg 240  
 gcagtacaag tgcgagctca aactcgagtt ttagtagcag tgtggcggat acagatgatg 300  
 atcagaccat tgcacgtata ttagctgaag atgagagctt gagaagagaa ggaagcttgg 360  
 ggaagagatt atctcattgg atccatccac acactcctcg ggttaacagg gagattaacc 420  
 cccccggg 428

<210> 2819  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-B9  
  
 <400> 2819  
  
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 catggcatcn tcnttgaaag caaacgctcc agcttcanca tcatacggca atgcatcaag 180  
 catctgaacc acgggaaagt ttaggagcga gtgggagttc ttcgggaaat tcctttgtgg 240  
 ctccaagaag cggtttcgaa ccaagcatcc cttctgctcc gcttgcctgac ttacaggaac 300  
 agatgagaan ccaaataaaa gatccanaga cgcnacagat gttcacgtct atgataaaga 360  
 acatgaaccc tgacatgatg gctancatga gcgaacaatt tgggaatgaa acnttccaag 420  
 gaaaa 425

<210> 2820  
 <211> 422

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-C11  
  
 <400> 2820  
  
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 atcttcacng tccattaatc gaatcatcga nntcgttcgt cgattatcgt ctcgagactg 180  
 tgtaacaga tcgagagtta ccgtattttc gccggattta tctancgatg atgattgaga 240  
 tgacagtttc nctttcatct ggcggtccg gcgatctttg tttangtcat caacaanggc 300  
 atgtcanttc ttagnctgat cttegctgga cacgtaggaa gtttcgaact cgccgncgct 360  
 tcacttgga acagtggttc aacaatgtgn acctanggan ttctgcttgg aatggaaagt 420  
 nc 422

<210> 2821  
 <211> 489  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-C12  
  
 <400> 2821  
  
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 aagaatanca tcntctgang aaatcgcaga taggggtcaac angatgcttg ctgtcntaga 180  
 gcacaacatc ctttgggtta accctgantg tgggtctcaag acccgtaagt acaccnangt 240  
 caagcctgca ctcaacacca tggttgatgc ggctaagctc atccgctccc anctcgccag 300  
 tgccaantga agaaaagctt gatttganca aagaaacgtt tttttttctc taaaatgggt 360  
 gtgttttatt tggtttaata actttctnaa aaataatttt agtctaaggt agatttgatg 420  
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 aatgtttgt 489



<210> 2822  
 <211> 493  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-C3

<400> 2822

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acatgctggc tagtcatgtg cttggtgcag cctggtatat attatcgggt gatagatata 180
catcgtgctg gaaatcaaga tgcaatggtg aagctggcca agttaattgt cagctatatt 240
acttagactg tgattcaatg tatgacaata atcagatgac ttggggcaaat gtcacaaaag 300
tgtttaaact ctgtgatgca cggaatggcg agttcaagta tgggatcttt gggaatgcaa 360
tcacgaaaaa cgttgtgtct tcacaagttc ttcgagagat atttcctact gtttgtggtg 420
gggaatgcaa caacttaatt cctaattggac aaaaatttgt cccacgaaca atgttcaaaa 480
tggggggggg gcc 493
```

<210> 2823  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-C6

<400> 2823

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cctgatcggc tccggtggtc ccagcggatt cgggtcaaga tccaccgccg atcatgtcac 120
ttgtaattct gatctccgtt ctctaactgc catcatcact ggccgcgacgt cggggatagg 180
agctgagacg gcgcgtgttc ttgctaagcg tggcgcaaga cttgtgcttc cggctagaag 240
cgtcaaaacc gccgaggaaa caaaggctcg tatactgtcg gagtttcctg atgcggagat 300
catcgttatg catcttgatc tcagctcact tacctctgtt cgtcgattcg tggacgattt 360
cgaatctctc aaatctccac tcaacatcct cataaacaat gctgggaaat atgcgcatta 420
aaaggnccc 429
```

<210> 2824  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-C7

<400> 2824

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ttggaatctt tggttaatgg acctgccaaa agcaaaagga agatgggata tggcagggtca  180
ccaagtgttt tggtcctttt accgaccaga gaattggcca agcagggtggc tgctgacttt  240
gatgcatatg gaggatcact tgggttaagt tcatgttgtc tctatggagg tgatagctat  300
ccagttcagg agggtaaatt aaagagaggt gttgacattg tanttggaaac ccctggtcgt  360
attaaggatc atattgaaag acaaaacctt gatttcagct atttacaatt ccccggtttt  420
ggtt                                     424
  
```

<210> 2825  
 <211> 432  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-C8

<400> 2825

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gcccacgctg ccgcggacgc gtgggttcat gtgcaaggaa tcccgggtgg ggatccgtct   60
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cctaagaagt ttaaccttaa gtatagagag tttccttgct gggatgagca agagaaggat  180
gaagacggtg caggggtttt gttttcgatg tcgaaggaga atgtgattgc tgctcctgtt  240
agtactttgg ttggaatgag gaggagtctt gatggtaaag gaggaaccaa tgacgtgaag  300
cttggttgtg actctggtga aacggataga aaacattctc aggggtgctat taagaaggat  360
aagangttgc ttcgtcctaa gatgacgaat aaacgaaaga aaaagaattg ttcggtgcct  420
tttccnaaa aa                                     432
  
```

<210> 2826  
 <211> 489  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-D1

<400> 2826

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tgttatttgc cnggccggtc canaattaac gggtcgacgc acgcgtccgc ccacgcgtcc 60
gcatttttct ctcttcata aaacccaaaa gaaactagga agaggagtaa ataattttg 120
ttttaaaaga atgattctcc acaaaatggc gttcttgccc gttattctct tcttcttgat 180
aagcagcagc agcgtttgcg ttcatagccg tgaaacgttt gcttgcgata caaaggacgc 240
agcaacagct aactgagat tctgccagct ttcagttcct ataccggaga gagtcagaga 300
tttgatcgga cggttgacat tggccgagaa agtgagcttg ttagggaaca ctgcggcggc 360
gataccacgt ctaggaatca aagggtacga gtgggtgggc ngangcttac acggcgtttc 420
aaaatgtggg acccggtacn aagttccggg ggggtttacc ctgcaaccaa caantttttc 480
cccccccc 489
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<210> 2827  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-D10

<400> 2827

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caccgaatct aacacttaga ggattcgggt tcgtggaaag gattaaggct cttcttgaaa 120
aagtgtgtcc taagactggt tcttgcgag atatcattgc tttgactgct agagacgcag 180
ttgtcgccac cggangtcct tcatggagtg ttccaacggg tanaagagac ggtangatct 240
caaataagac ggaggctact aataacattc cacctccaac gagtaatttc acgactttac 300
aacgactttt caaaaaccaa ggccttaatc tcaaaggacc ttgttctgct ctctggggct 360
caacacgaat tggcgggtct acantgggtc ttccaatgaa ataacgcgnt tctaaaa 417
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<210> 2828  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-B11  
  
 <400> 2828

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gctttttggc actcatagga ataacagcga accaaggatt ttacttggtg ggactggaca   60
acacttcacc aacatttgct tcttccatgc aaaactctgt tcccgccatt acctttctca  120
tggttgctct tctcaggatt gagaaagtaa gaataaacag aagagacggt atctccaaaa  180
tcttaggaac agctctttgt gtcgcccggag cttccgctcat caccctctat aaaggtccaa  240
ccatctacac tccggctagc cacctccacg ctcatctact caccacaaac tcccgccgtc  300
ttagcgccgc taaggaaacg ccgcgcctaa aaactggacc cttggttgca tctacctaata  360
cggtcactgt ctctcgtggt caggctggct tgttttcaaa gctccgggtc ttaagtctat  420
ccagcggangc tctc
                                                                    434
  
```

<210> 2829  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-023-Q1-E1-G9  
  
 <400> 2829

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ganagaacat aaggaaaagc tacaaaggcg tgactgtgct taaagatgtg acatgggaag   60
tgaagagagg tgagaaagta gggttagttg gtgtgaacgg agctgggaag acgactcagc  120
tcaggattat cactggtcaa gaagagcctg attctggtaa cgtaatcaag gccaaaccca  180
atatgaaagt agctttcttg agccaggaat ttgaggtttc gatgagtaag actgtgaggg  240
aagagttcat gactgctttc aaggaagaga tggagattac tgagaagctt gagaaagtcc  300
agaaggctat tgagggatct gttgatgatt tggatcttat gggaagggtta ttagatgaat  360
ttgatttggt gcagagacga gctcaggctg tgaatttaga ttccgttgat gctaagatta  420
gtaagttgat
                                                                    430
  
```

<210> 2830  
 <211> 453  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-023-Q1-E1-H1

<400> 2830

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 ttctactgta tcaagaagct ccgttttgct tagccatagt gcgtctaggg tttgggttggt 120  
 gggaagaagg ttccgatcat ggcgtcgggtg tcgtcgtcgg atcaaggacc taagacnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 atgttggtgt atagaggttt taagaaggcg aagaaggaga gaggttgtag agctaaggag 300  
 cgtattagta aaatgcctcc gtgcactgct gggaaaagga gttccatata ccggggagtc 360  
 accaagacat agatggacag gtcgttatga agctcanctt tgggataaga gtacctggaa 420  
 ccaaaaccag aacaagaagg gaaaacaagt tta 453

<210> 2831  
 <211> 435  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-023-Q1-E1-H10

<400> 2831

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 gagttcttcg aattccgacc aaaatgaggg aactccgacg agctctgttt cttcgccgta 120  
 ccggagaaca tactcagata tccccggatt atctcaccgg ttcgacgttc agagctttta 180  
 taaccggccg tcaaactacta acgctgttgt cttgagtggc catgaagaag atgtctccga 240  
 agacgccgag gaaccaaag atgatgtcgt caacgacgtc cacggagatg gagacgaaga 300  
 agacagcgac attgattctg cagaagatgc agagctagag atgatgaggg aaagatttgc 360  
 gaagctgttg cttggtgaag acatgtcagg aagtgggaaa agganttgta ctgctgttac 420  
 tgtgtcaaac tccat 435

<210> 2832  
 <211> 457  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-023-Q1-E1-H4

<400> 2832

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ggaaaaatca gccgagcaga ttgatgccga tactgctgta gttgggtgacg acggtgaagt   60
agatttttaa ggtgaggcta aatttgcaca acatatgaag aagggagaag ctgtgagtga   120
atttgccatg tcaaagacca tggcagagca acggcagtat cttcccatat tttctgttag   180
agatgaacta ttgcaggtaa taagagaaaa ccagggtgata gtgggtggttg gcgaaactgg   240
ttcgggaaag accactcaac ttacacagta tcttcatgag gatggttaca ctataaatgg   300
tatagttggt tgcacccaac caaggcgtgt acagccatga gtgttgcaaa gagagttagt   360
gaagagatgg aaacagagtt gggcgataaa attggttatg caattccgtt ttgaagatgt   420
aactggtcca aacactgtta tcaagtacat gaccgat                                457
  
```

<210> 2833  
 <211> 439  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-A10

<400> 2833

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tttgaatttg ttcttgcaat cggattcgaa atccgaaagt cttagtctcg aatttgagct   120
caacagtttc ttatggctcc gaagaagtct gaaggaatcg ctttgctttc cgtttacagt   180
gatgaagatg acgaagagat ggaagacgcc gaggaagagg aagaagagga tgagaagcag   240
agaaatcagg aagagagtga aaaaataatt gaagaagatc aggtagaaga agcgaattat   300
atggatgaag aagagaaagg aagaggagga gaagattcta gaacgccgag gctattagat   360
ggtgttgag cttcntctag tgctcatggg actcctcggt cacttgataa cgatgaatca   420
tcgagacctg attgnggtt                                439
  
```

<210> 2834  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-A12  
  
 <400> 2834  
  
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 ccgtgagttt tttagttttc cgttacattc tctgtctcaa ttctgaaact tttcacatgg 120  
 gttgtgctca aatttccttt ttaatggttg tcgagattta tctataaagt caatgatctg 180  
 ggtttgatca aagtctcaat ctttctctta aatttcgaat atttgatgat cccacgagtt 240  
 agtctctcta aatctgatct ggctatgctt aatccgccac attggtgctc tcaagctctg 300  
 gatttgattg tatcatgaaa agttatccaa ttggggtcna gtaagggcat tcaatngcgt 360  
 aactccaaga aagccggtgg attttcgatt taaaaatcag ggagggaact atcagaaaat 420  
 cangaaaggc 430

<210> 2835  
 <211> 499  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-024-Q1-E1-A2  
  
 <400> 2835  
  
 ntgtctacgt tgggtccgtgn ccgtgtccaa aattaacggg tcgacncacg cgtccgncac 60  
 tctccaccac cacccaagaa gcactacgtg tacaaatctc cccctcctcc agtcaagcac 120  
 tactctcccc caccggttta ccattcccca ccaccaccaa agaaacatta cgtatacaag 180  
 tccccctctc ctccggttaa gcactactct cccccaccgg ttaccactc accaccacca 240  
 ccaaagaaac attacgtata caagtnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnatacc actattagat atctctatca 360  
 cggagaacac gatgtacaca agaagacaaa gacaagacga aaccaagtac tgggtgattgg 420  
 tataagagaa acaaaagatg aaagaagaag aatccaagca gagaaaagct ttctcatcaa 480

ttttccaaaa aagggggnt

499

<210> 2836  
<211> 479  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-024-Q1-E1-A3  
  
<400> 2836

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tctcaagact ttcaatagta ctcagttccc catttgataa gtccttaac atgagtgagc 120  
tcaccancag cttcgtattht agcactatat tcaatgggga actgattact ttctcangac 180  
tttcaatagt actgctgatt ccattgatga tcttgtgtca caggttggat caggaataac 240  
tgatgatgga aatacagatc ctaatgacca ttactgttgg atgcgacctg aggatatgga 300  
ctataaaagg cccgtgacta cttgtaatgg tggatgttcg gatctcgctg cagagatggc 360  
agctgctctg gcttcagcat ctattgtatt caaggataac aaggaatatt ctaaaaagct 420  
tgtccatggt gctaactggg tgtatcagtt tggaaggacg aaggagangg gagatataa 479

<210> 2837  
<211> 460  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-024-Q1-E1-A4  
  
<400> 2837

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cacnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnga 120  
tctgtgagtg ccnttatcgt tgagagatta tgttgacaaa gttcgaaacc aaaagtaaca 180  
gagttaaggg actgagtttt caccctaaac gaccatggat tencgcgagt ttgcacagtg 240  
gcgtgatcca gtcnnggat tatcgtatgg gtactttgat cgatagattc gacgaacacg 300  
aaggacctgt ncgtggtggt catttccaca attctcagcc tctcttcgtc tccggagggg 360  
atgattacaa gattaaagtg tggactaca attnccacaa ggtgccnttc actcatcaan 420



ggcatcntga tatatccgca cggttcagtt caatcatggn

460

<210> 2838  
<211> 452  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-024-Q1-E1-A5  
  
<400> 2838

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tggcggaagc aaggatatca cgtgagctat gaagttcctc atgcaatcca tttctgggag 120  
gaatcgatct ctggttcgag ctctagttag tcggcggttac ttcgcttcat cgccggagga 180  
aatcgcaaag atgaaattac gccancgac tgctngaata caacaccgct gtcaactccg 240  
tcacagctca ncgagggcac tatttgctga nggatgttta tgatgatatg aagcttgatg 300  
gtgtgcagcc tacagctgat atcttccatt caatttgtcc tggggaacga tgaaaggatg 360  
tccggttaaa negatncggt cctttttccn gggaaagaaa atntaaagcc atgggggaat 420  
tgccccaaaa tggtgaaaac ccntttttg gg 452

<210> 2839  
<211> 431  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-024-Q1-E1-A6  
  
<400> 2839

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gagatcatca ttctacagtt tcaagaagat accatttcca agactatctg attatctgca 120  
cttgtagtga aactgtggaa gaagcaaaaa tggggacttt gagtaagggtg ctatgtctca 180  
tgctgctttg ctgtatcgtg gctgctgctg agggacttt gaagtacaag gacccaaagc 240  
agcctttggg tgcaagaatc agagatttga tgaaccgtat gactctacaa gagaagattg 300  
gtcagatggt tcagatcgaa cgcagcgtcg ctacacctga agtcatgaag aaatacttca 360  
ttgggagtgt tttagtggt ggaggaagtg tgccctcgga aaaactactc ctgaaacttt 420

tggggggggg g

431

<210> 2840  
<211> 435  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-024-Q1-E1-A7  
  
<400> 2840

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tcacacacac ttctcctacg tccaaaactc tccaccaacc atctgttgcc acgtggtgga 120  
aaaccacaga aaaatactac aaactcgcaa caccagcaa aaactcatca cctctgtctc 180  
taactctcgg gaaacaaatc atcgacgagt cttgctctct aggaaaatct ttaaccgata 240  
aaaagattca aaccctagct tcgaaaggag accaacgcaa cgccatcaac gtcgttttga 300  
cttcagctga cgttacgggt acaggatttg gtatgagtcg ttgcgggact cacggacacg 360  
ctcgtggttt angtaaactg ggctccaagt ttgcttacat ttgggttggg aaactctgag 420  
acacaaaatt ggggt 435

<210> 2841  
<211> 430  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-024-Q1-E1-A8  
  
<400> 2841

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taccagttat cgacatcagt cttttactgg ccaaattgtga tgatttcgac atgggtgagg 120  
atgcgggggt tgtggaagta gtcggaaaac tggacagggc atgtcgggac gtcggattct 180  
tctaagtgat tggatcatgga atatcngatg atcttataaa taagggtgaaa gagatgacgc 240  
atcagttctt cgagcttcct tacgaggaga aacttaagat caagattact ccaactgctg 300  
gatacagagg ataccanata attggagtaa attttacgag tgggaaacaa gatatgcacg 360  
aagccattga ctgttacagg naagttcaag caaagggaaa catggggana tccggaaang 420

ggcccttttt

430

<210> 2842  
<211> 434  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-024-Q1-E1-B10  
  
<400> 2842

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aagcctttgc ttcagtctca cttatcatag ccacagttgc tttcttgctc tcaccagggtg 180  
ggctcgcatg ggcttgacc gggtcatcca agagtcgggt ttcgattcca ggaccatctg 240  
gttctcttcc cgtcttctcc ggtccaatc cccaccgtng ttctcgccgc tcttgctaaa 300  
cgcttcaagg cctctccgtt gatggcggtc tcagttgggt tttcgcggtc gttatctcta 360  
gtgaaccgga gacggctaaa gagattttga gcagctctgc tttgctgaac gggccgggtta 420  
aggaatcaac ntaa 434

<210> 2843  
<211> 453  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-023-Q1-E1-G4  
  
<400> 2843

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atggacaact gctgctggtt tgtaattgc cgggtaccaa tcgcctgtta gaggatgtct 120  
attggcttca ccacacgaac attgatgcag agtacgtagt aattcttgat gctgacatga 180  
tccttcgtgg acccatcaca ccttgggagt ttaaggcagc tcgaggccga ccagtttcaa 240  
ctccttacga ctatcttatt ggatgtgata atgacctgc aagacttcac acgcgtaatc 300  
ccgaggcttg tgataaagtt ggtggagtca ttataatgca catagaggat ctccggaaat 360  
ttgcaatgta ctgggttgcn taaaacccaa gangtcgagc agacnaagaa cactacgggg 420

aaggagttaa ctggggatat atatgaatcc ngt

453

<210> 2844  
<211> 442  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-022-Q1-E1-C9  
  
<400> 2844

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aacaagaggc agaaggaaaa aaaatgtgga ggtcattcgc aagaagcttc aaactcatta 120  
atgtaccaa tggtttgata tccaagccaa ttcgctctac tctcctctat tcaacttctt 180  
caagaaagtt agaaggaaaa gtagcgggtca taaccggcgg ggcaagcgga atagggaagg 240  
ccacagcgga ggaatttgtg aagccaaggt gcgcaagtga ttatcgtaga tatagatgaa 300  
gaaggctggg catatgggtc cgaccgaact tgggtcagcc gcacatttcn taagatgttg 360  
atgtcactga ngaagaacaa atccctaagg cgttgagaac gccgtgactc ctcattnggna 420  
actcgacgta atgcnaatat gc 442

<210> 2845  
<211> 496  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-022-Q1-E1-D1  
  
<400> 2845

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taatcgaaga acctaccgt aagtccactg agggattcaa gttcttgctt tggtttanmn 120  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nngtcaaacc 180  
aacgacggag ctggagctgg agctgttacg acggtagaat ctgttcctcc tcagcctcaa 240  
tctcagcctc agcctcagcc gcagcagcag agcaacgaga tggttctgca tacgggaagc 300  
ttgagtttta gtagtcatat gtcgagagaa gacgaagaga tgactcgttc tgctctttcg 360  
gcgttttagag ctaaagaaga tgagattgag aagaggagga tggaagttcg tgaacggatn 420

caagctcaat tgggtcgggt cgaacaagaa ancaaacgtc tctctactaa tcgtgaagga 480  
gcttgagtcc aaggna 496

<210> 2846  
<211> 458  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-022-Q1-E1-D2

<400> 2846

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ggctgatcaa actacgaaag cgttatctga attagccatg gattcttcta ccaccttgaa 120  
tgctgctgag tctagcgtg gtgatggagc tggacctcgg agtaaaaatg ctttgaagaa 180  
ggaacagaaa atgaagcana aagaggaaga gaagagacga aaggacgaag agaaagctga 240  
aaaggctaaa caagcaccta aagcaagctc ccaagaaggc agtggcagca agatgatgaa 300  
gagatggatg caacgcaata ctatgagaac agattgaaat atcttgccgc tgagaaggct 360  
aaaggggaaa atccatatac tcacaagttc gctgtgtcaa tgtcgattcc taaaatacat 420  
ttgagaacnt atggtagttt gaacaatggg gatnaagt 458

<210> 2847  
<211> 471  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-022-Q1-E1-D5

<400> 2847

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ctggagggag aggtgtaccg atcagagatg tcttgggaaa cagcaaatg attcttggat 120  
tgctcgaagg aattcccacg atgcacaagg gtgaaattgc aatgttcaag atgaaacctg 180  
aaatgcacta tgcagagatt gattgtccag tctcagctcc agaaaatttt ccaaaagatg 240  
atgagcttca ttttgagatt gagttgttgg atttttctaa agccaagatt gcaagtgatg 300  
atctgggggt catcaagaag attctaaatg aangtgangg ctgggaatct cccaaganaa 360

acctatgaaa gttgaaaanc agaatatccn gctaaatccg gtgattgnca cgtgattctt 420  
ctctcacaca ggaaagaacc ctttaatttcc ttcacatttg ggaaaatcct g 471

<210> 2848  
<211> 474  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-022-Q1-E1-E1

<400> 2848

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acctctgcat tccacattcc ttctctgcta gcaacaatag ccgcagcgcg ttaaagtact 180  
gtaaagatca atctaaaagc aggaagagtg gccttagcac ctggcaaadc gtgctaatag 240  
cggctcttct gtctttatta gtcttggttg tggctccttg tcttgttttc atttgcttac 300  
gtcgtcgcaa aggaagacca gagaaagatg cttatgtctt cactcaggag gaaagnccat 360  
ctttgttggt gaacaaagtt cttgcagcaa ctgacaatct aaatgaaaag tacancattt 420  
ggnagaagga gctcaaggga attgtgttca anagncttcc tttagggtcc cgga 474

<210> 2849  
<211> 429  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-022-Q1-E1-E10

<400> 2849

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnncatc 120  
aactcaagat ctcaacgccg acagaaccgc tcttctctct ctccgctccg ccgtcggagg 180  
ccgtacattt cgctggaaca tcaaacaac ctcgccgtgt aactgggccg gtgtcaaata 240  
cgagagtaac agagtcaccg ctctccgctt anccggcggt gctctctccg gtgacattcc 300  
agagggtatt ttcggtaact taactcaagc tccgtacact tagccttcgt ctnaatgtct 360

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 ggagatactt ctgctgctct atctgcttac tgcgcctccg ctggaatccc atcgattgtg 240  
 tttttaccgg cgaacaagat ctctatggct canctgggtc agccgatanc taatggtgcc 300  
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 ggagtttagac cattcaaata agactaaagc agtggatgat gttgttgcca ctactgataa 180  
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 agatgttgct tccccggtat ccgagaaagc accgaaggnt tctgaaagta ccggtgcaat 360  
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450

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gataaactgg acatgcatca tcaaggtaca gacttagtgg acgcgttggt ggcagcttgt 180  
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ctcttatttg caagcactga cacctttgtg caaacaacac agtggacagt ggcggagatc 300  
attaataacc ctaatgttct tgagagattg agaggagaaa tcgattccgt ggtcngggaa 360  
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ggaaaggcta agactgcac cgccggggcc tcccctttgc aaggttcn 468

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<212> DNA  
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<223> Clone ID: LIB22-022-Q1-E1-E4  
  
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tctggcctta tgtaaagag cttctgagct gattaaaagc agtgtggaac cagtacttga 360  
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acgatgttga ctttatctgg cacacacatc agctgcaccc agtttcttac tgtgatgata  180
tggtgaagct cattggtaaa gtgttgagac atgatgacac agattctgac cgaggcaaag  240
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caagggtactg gaaagccggt gcaatgcata gaggcaagac actgttcctg gtcacaaatt  360
ctccttatgc ttctgatgtt ttggtcaaag acccaactgc aaaagacgat ttccagaant  420
taatccaaat tccaagnngg tggaanttgt tgaaggcccc cctgg                      465
  
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 <223> unsure at all n locations  
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tttctcctgt tagattttcc gattattctt tagctggaag tgattatcca gacgccatct  240
ccatcacttt caattgtatt cctatacctt cttctgaaga ttcttcgtat ttctcgattc  300
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atctcctggt ttctcaaca aggnnaacaa naanaaacia tgggttggtgg tggcaatcaa  420
cctccgcct  tggctcctt tgggggtccc tcccttcctt caannctaat ggggtgaaac  480
  
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519

<210> 2856  
<211> 463  
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cataccacct cctccagctc cggcgactgt aaccagcaac ggaacaacaa acggaatggc 180  
taatcagaaa cctcaagtct acattccagc taaccgtccg gtttaccgtc cacagcctta 240  
cagtcgccgt catcaccacc aatctcgacc aagctgccga cgaatttgct gttgttgctg 300  
tttctggctg attctgataa ttctgatctt agctctcatg actgcaatcg ccgccaccgc 360  
gatgtacgtg atctaccacc ctctccgccg gtcgttctcc gtcccgtaa taagaatcag 420  
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<211> 461  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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aattggagac gccgttcgaa gcaccggcgg ttcttggtgt gggacagcag accgacggta 240  
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aagcataata ttgaggctga naacatgaag gctggancaa g

461

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agaggtagcg gagtctgcca cgacgatagt ggtccgacgg tgaatgccac aaccatcgat 240  
gagcttcatt cgttacagaa gaaacgttct gctcctacca caccgatcaa ccaaaaactcc 300  
gccgctgctt ttgccgccgt ctccgaggag gagcgtcaga agattcagct tcaatctatc 360  
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<210> 2859

<211> 460

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-022-Q1-E1-B1

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gggagccgct aaagctagcg attgatcact atggatctcg cgttgctctt gttcttcacc 240  
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ataccttaaa cgccaatgcc acgttcaatt tgctggaagg gatcttcaa gcacagaca 360  
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460

<210> 2860  
<211> 447  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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tctccatgag tttggtgata caactaatgg atgtatctca acaggaccac atttcaaccc 180  
taacaacatg acacacggag ctccagaaga tgagtgccgt catgcgggtg acctgngaaa 240  
cataaatgcc aatgccgatg gcggtggcaga aacaacaata agtgggacaa tcagattcct 300  
ctgactgggt cctaattctg ttgttgggaa aacctttgtg gttcacgaac ttaaaggatg 360  
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aanaattggc atgttgtgtg aattggc 447

<210> 2861  
<211> 460  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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gcaacgtacg agtcaatcac caagggtaac cccatgtgga ataagctgtc tgttcttgag 180  
aataccctct actcatggga tcccaactca acttacattc acgagcctcc ataactcaag 240  
gacatgacca tggatcctcc tgggtccacac aatgtgaagg atgcttactg tttactcaat 300  
tttggggaca gtatcaccac tgatcacatc tcaccanctg gggaacatcc aaaaaggaaa 360  
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460

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gcatggatgt catctgccaa gcaaagtctg gtatggggaa gactgctgtg tttgtcctgt 360  
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<212> DNA  
<213> Arabidopsis thaliana  
  
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gagagttggc tggaatcttg aaggactatg tgggtagaga aagtcctctg tattttgcag 240  
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agagaagact tgaatcacac aggagctcac aagattaaca acgctgtggc tcangctent 360  
cttgctaagc ggtttgggga aaaagaggat tattgctgag acaagaaccg ggtcaacatg 420

gtgttggtta canctancng gttttgcccc ttttgggggtt ggattgggtat aa 472

<210> 2864  
<211> 463  
<212> DNA  
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gttaagaata atgatgttga agctctttgc cgaactccaa aagaaattct tggatggaga 360  
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463

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<223> unsure at all n locations  
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acatctctcg tatcaaatca acctgtaaat catggtaacg tttcctctct tccaaaacct 240  
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cttggggatc gntcctcct atgccttgta anccncacg atttacnggn actggaattt 420  
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<223> unsure at all n locations  
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tataagagat atcaaagatc cagagcatcc taatactctg gaagatctca gagtagttac 240  
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tgtcgaacat tgtagcatgg caaacgttat cggtccttgt gtccgtgtga aacttctacg 360  
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439

<210> 2868  
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<210> 2869  
<211> 442  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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caccgtactt ttctctcttc cggcaaaatc cgagtctaaa aatgacgagt aaaagcaaaa 180  
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ccaccatcga gaatttcaaa gaacctcggc gttcagtttc tcctcggaga ccttgacgac 360  
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442

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<211> 528  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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aattagttgg tctgcgggcg cgccttcgtt ggctgtggcg gaggaggaat ttgaggagga 180  
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gagtgatgat gaagattanc ttcttagatt cantttatgg tttgtgaata ctgaaagana 360  
gagattgatc aaagttcagg aacaaattac aatcttcngg tttccgtcnt cgtatgtgat 420  
catgtttgat gactccgggt tgttccgtcc tgagtgatat anttcctngg gnttgaanaa 480  
tacattgntg gttcaacaan gnaattttta actcccttga ttttaana 528

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<212> DNA  
<213> Arabidopsis thaliana  
  
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gaaatttata gtcaagcant aaagggatna cacggggtgc aagcaagttc agccagtcgt 420  
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<210> 2872  
 <211> 514  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 aagtcattct gaccgctgct tcattcgact cctatgaatg gttccgcatt gctcaagtta 300  
 taggaaagga agcaagagga gtgtacaacg cagggcaagc gaatggaatg acattttggg 360  
 caccaaacat taacatatat agagattcac ggtggggaag angccaagaa actcccggcg 420  
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 ttggtctcag gttaattttg attccatcca acttcctcct ggagaagact ttgggatcga 180  
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 cattatcgtg gtgatcacc tcctgttgt tccaaggag aagtttgaga aacttgaagg 300

tgttgtcaag aaaatttaca accagtttagg tgtgattaag gaaaatggac tgtggatgcc 360  
 tgttgatccc gataccaaga tgacattggg ctactgtttt attgagttca acactcctca 420  
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 tatatatatt aaaaaaaaaa cattcttata atctgaaatc ggaaaaattc acttcactct 180  
 cttcgttttg cgtttttttg tgtgtgtgtt ttaaatatca aagccatgtt ttgggtaagg 240  
 aattaaagag caaaaacctc gattccgatt tcaaattatc gaaggtgaaa tttcttcatt 300  
 ttctgcgaat ttggtagcta tcacgttctc aatctggtga attanggctt ttgttgagct 360  
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<210> 2875  
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 <213> Arabidopsis thaliana  
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 cgaggaatac tcaagaagcg atatctggtg atgatatcgc tgttgtctcg ggtttgtttg 180  
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gtcttggtga taatgcacag agtttagtta atggagttga tgctattaag gaagctggca 300  
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 <223> unsure at all n locations  
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 ttgaacgaac gaggatgacg atgctcaaag tccgaagcag agatggattg ggagaagagt 240  
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 angctttcag gtttccctat cccacaaacc naaanccttt nntccaacca aattagnaaa 360  
 cctttnctcc ctctgcctaa aggaaggccc ctttcnggaa ttttccctaa gcgggttttta 420  
 aanccgnaca aatggggccc ggatttnctt naaacccttc ccgggaaatc ctccgggttc 480  
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<210> 2877  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 cgcagaacaa gaaccttcaa ttctttctcg cgctgatcaa ctcttcaaca aaacaagctc 180

atacctcgat ttttcaacaa aattcaacca accaagaatc gaactaacaa catcaacgat 240  
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 ctttaaagcn tctcangctt ttaaggggta actgggtgga tttaagagcc tanacgtggg 420  
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<210> 2878  
 <211> 474  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 2878

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 gtgaagtctc aatcacattg cctacngatc aatctcctca aacctcacca ggatcatctt 180  
 cttctccttc accgagacct tccggtggat caccggcgag aagaacggcg actggattat 240  
 ccggcaagca ctctatcttc agggggattc gactacgtaa cggaataatgg gtatcggaga 300  
 ttagagagcc acgtaaaacg acaagaattt ggctcgggac ttatccggta ccggagatgg 360  
 ctgccgccgc ttacgacgtg gctgcgttag cnttaaaagg gcccgacgcc gtttgaattt 420  
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 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 2879

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caggaaaatg gatctcagaa aattttcccc actcagatat catcacgtga tagtaaggtt 180  
tctctatcga gcacggtgaa gggctctgaga gaacgtcctc catcgtctta ctctctcaag 240  
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tttagggctg gtagatacaa ctggacgctt gttgtgtatc cgaagggaaa caagaacgat 360  
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<210> 2880  
<211> 483  
<212> DNA  
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ctcgtattcg tttctctcct gtgtcgcgta tttcttctct taatgggtgat aataagctta 180  
caaattctcc gccacagttt ttaaagccg gcgcgagctc ccgtcgtttt gtggctccg 240  
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aaggtgggat tgaagatgac gcggagcgat ttgcgagacg agagagcacg atgcctgata 360  
gattcagata tttgacaaa gaagctccag atagtccaat tatatggcca tggtttggtg 420  
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aan 483

<210> 2881  
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<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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nnnnnnnnnn nnnnnnnnnn cttctcatg atttcatttt cggatctaag ctctctgata 180  
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 gcgacggaga ttcctcaaca acctgtatca togacgggtg cactggccgt attttgacct 300  
 acgccgatgt acaaaccaac atgcggagga tagctgccg aatccaccg ctccgggatcc 360  
 gccacggaga cgctcgtaatg cttctcctcc cgaactcgcc gggagtttgc tccgtctttc 420  
 ctgccgttgc ntaacttggg agccgtttcc actaacgca atccgttcta aaatcaagcc 480  
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<210> 2882  
 <211> 454  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 gtttatcgcc aaaatccgaa tcggtttgtc tccaattcaa tcacgcttcc tctgcagaag 180  
 aaacaagtta cagtgttgag aaatcacgaa aggtttaatc tttgggatgg gttttcaaga 240  
 aagaagagta gattagttgt gaattgtcaa gaagatgatc agaacgagag ttctagttag 300  
 gaggaagaaa gcagtcagag tactccggcg aagtcggaga ggaaaagaga gaagaaagaa 360  
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<210> 2883  
 <211> 512  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnga 180  
 taatgggagc ctatgaaaca gaaaaaccaa ctaaagatgc ggcggtctta gagacacagt 240  
 cgccggaaga ttctgatcaa ccctctccgc ttctgtaaaat catctccgtc gcttccatcg 300  
 ccgcccgtgt acagttcggg tgggccttac agctctctct tcttactcgc tacgttcaac 360  
 tcctcggaat cccctcacia atgggtcaat ctcccaattt gggctcctgt ggtccaagtc 420  
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<210> 2884  
 <211> 446  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-022-Q1-E1-A2  
 <400> 2884

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 ttgtcagtta aaaacagctg aagaagaact cgaacgggtc aagagtggct aaagataagg 180  
 ctctgttctt ccttttaatt gtaaagtttc ttctctcgcc atattcttgg aactcacttg 240  
 ctttctacat ggggggtctc tggatctgag ttgtcatttg ggtttantgt tgtttatgtt 300  
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<210> 2885  
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 <212> DNA  
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 cagtggtttg gcaatcttgt tactatggag tgggtggactc atctatggct gaatgagggt 180  
 tttgctactt gggtcagcta cttggctact gatagtttgt tccctgaatg gaaaatctgg 240  
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 ccgatagagg tggangttaa tcatgctgct gaaattgatg aaatatttga tgcaatnagc 360  
 tacagaaagg gtgcatctgt catcngcatg ctacaaagct atcttggtgc tgaggttttt 420  
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<210> 2886  
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 <212> DNA  
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 <223> unsure at all n locations  
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 tttctgatat atctccttta cttttcactg gcatcttggg ggctgttgtt gcagctctca 180  
 tgatgaacat ttacatagtt gggctaaaatc agttgtctga tgttgaaata gataaggtta 240  
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 tagcttccct cccatcatg agtttctggc ttgggtggat tgttggttca tggccattgt 360  
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agcatagaag aagggccttt gcagctcaag aacaaaaacg acgattcaga gtgtcgtatt 180  
actgcttggt ttatccttag cacttttgtc gccgtttgtg gtccttctc ttttggtgtt 240  
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gcgcaatttt cagcttttgg ctcattcgcc actttaggag ctgcaattgg tgcactgttc 360  
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<210> 2888  
<211> 478  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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caagagttca ctctcgctc cgtcactgat ctcaattctc ctctctcatc tctttcgctc 180  
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ccacttcagt tcaattgtgt atctgatggt tcgatttctt ctgcaaaagg gagaaatccg 360  
tcattttctc cgaaggagtt ggnaataaaa atttagaaga atgaagaaag gatagcaaag 420  
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<210> 2889  
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<212> DNA  
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tgtttanaga agagatttcg tttgttatcg ttctgggtttt aatcaacctt ggaagaaaagc 180  
taatgtagag catccaagag agcgtaagtc tgtagatgt ggttgatg gtaagttgta 240  
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tcataatcat gagcttttgg aagatgatca agttaggttg cttcctgctt ataggaagat 360  
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<210> 2890  
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ttcgaaaagt actcagagaa tggagttatg ancgttgatc atctccacan gtttctgatc 360  
gatgttcaaa aacaagatta agccaccaag agaagatgca cagtcaatta tcaattcggg 420  
ancttccctt cttcancgta atgggccccca acttgaagct ttcttcaagt acccctttgg 480  
ggagaaaaaa cccccctgg cccccaa 507

<210> 2891  
<211> 498  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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cagaatggct aggtcaccga gcaaacacgg ccgcgatcaa actcaggatt gggaactctc 180  
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gagcaaggta atgaattcct caaccagaag aaattcaatg aggcgattga tgttaccccc 420  
ggagcattgc tttaccgcaa atgccgtgac ttatgcaa at ccagcatn gn ttaccttaaa 480  
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<210> 2892

<211> 514

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-020-Q1-E1-E3

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tcctcgtcgt aggcctcttc tctttatctg ttttgggtctc tcagtcgatc gcaggagag 180  
tcaaagctcc attgttgcag agcaatactg gtggattagt tttcagcaaa tccttcaatt 240  
cgatctatga tacttctatg tacggacgct tgcagctcaa caatggcctt gtcgaactc 300  
cacaaatggg atggaatagc tggaatttct ttgcttgcaa tatcaatgaa actgtcataa 360  
aggaaactgc tgatgccttt gggtcacctg gcctggctgg attaaggata catacattca 420  
ataattgatg attgcnggcc aaatttgtag ccaatcaaaa gggcaattgg ttctcaancc 480  
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<210> 2893

<211> 456

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-020-Q1-E1-E7

<400> 2893

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tctgcttcca gctgaggagt cctttgtttt ggagattgat actgagatat acccccacaa 180

gaatacttca cttgaggggc ttacaagtc ttctgggaat ttctgcacac agtgtgaagc 240

agaaggtttc cgcaaaatta cattttacca ggatcgctct gatataatgg ctaagtacac 300

gtgtcgtgtg gaaggtgaca agacacttta tcctgtgtta ttgtccaatg gaaacctcat 360

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<223> unsure at all n locations

<223> Clone ID: LIB22-020-Q1-E1-E9

<400> 2894

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gttgaggttg tggagagaga atcgttgatg gataagatat cggagaagat ccatcacggt 180

ggtgattctt ctctgtcttc ttcattctct nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240

nnnccctctt ctcttctgtc ttctatgaaa tcgaaagttt accgcttggt cggacgagag 300

caacctgttc ataaagntct cggngtgga aaaccggctg atataatcat gtggaagaac 360

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<210> 2895

<211> 515

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-020-Q1-E1-F1

<400> 2895

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ctcctctaca ggcagtgaaa ctcccttgcta tgtatctatc gagtcctgaa aacaaggaat 180  
caaccatttc gagcttgagg gaatgggttg cagatccaac tgtaggaaac aatgctatta 240  
tcaggttgat tgctgggtact atattcatgc atgaggaaga ctataatgag gctctgaagc 300  
acactcattc tggaggaacc atggatctgc atgctttgaa tgtccagata ttcataaaga 360  
tgcacagatc agattttgcg gagaaacaac tgagaagtga tgcaacaaga ttgatgaaga 420  
acaacaacaa tcaatcaact ccccaacccc ttggttgaac cgggaaatna ggggggtcca 480  
natacaagga anctaaccna accttcaagg atttc 515

<210> 2896  
<211> 434  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-020-Q1-E1-F10

<400> 2896

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cacgatggga acaatgggta aagcattcta cagcgtagga ttctggatcc gtgaaactgg 120  
tcaagcactt gatcggtctg gttgtcgctt ccaaggga aaatcatttcc gagaacagct 180  
atcaaggcac cgcacactca tgaatgtttt tgacaaaacc cctaattgtg ataagggggc 240  
ttttgtggct cctaacgctt ctctctctgg tgatgtccat gtgggaagag gttcttccat 300  
ttggtatgga tgtgtcttga gaggagatgc taacagcatt agtgttgag ctgggaccaa 360  
tattcaagac aacgctcttg tccacgttgc taagaccaac ttaaagtggg aaagtcctac 420  
ctactgtcat tgga 434

<210> 2897  
<211> 440  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-020-Q1-E1-F11

<400> 2897

tttttgcggg ctataaacac agatttcgat aggattattg caatgtgcaa aaactggcag 60  
gacgataatg gggacttttc agcagtgaac atggatactg ctgttgctat tcgcactctc 120  
gaggcgactt ataaatcatc tgcagatgct gattctgtcg aagctatgat aataaaaactt 180  
accgaaaggg agggcacaca gcttaaatcc aagggaaagg ccggtgctgc tacacgtggt 240  
gcagtgtctca catggcgatc acttttagtt atgtcaagag aatggaaata ctattggctc 300  
cgacttatcc tctacatgat tcttacctt agtattggca cattatattc tggcttaagt 360  
cactctttgt cctctgttgc agtaagtcct ctaaaccatt ctcagcatgt cacatttgag 420  
taccaagaga tcaattatcg 440

<210> 2898

<211> 493

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-020-Q1-E1-F2

<400> 2898

gcacggtcca aanatcccg gtcacccac gcgtccgna gaaaccattt ggagttggag 60  
ctttggacga cgacaatggc cccgaagaaa ggagtgaagg tagctgctaa gaagaagacc 120  
gcygagaaaag tttcaaacc tctattcgag aggaggccta agcaattcgg tattggtgga 180  
gctttacctc ctaagaagga tctctctcgc tacatcaa at ggcccaa atc catccgtctt 240  
caaaggcaaa agaggatcct gaagcanagg ttgaagggtcc ctccagctct taaccaattc 300  
accaagactc ttgacaagaa tcttgctacc agcctcttca aggtccttct gaagtacang 360  
ccagaagaca aagctgccaa gaanggacgt cttgtaaaga aagcccaagc tgaanctgag 420  
ggaaagcctt ctgagtctaa naagccaatt gtnntcaata acgggtcaac caagtgcact 480  
aactcattga gca 493

<210> 2899

<211> 456

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-020-Q1-E1-D4

<400> 2899

ggnggagatg tgcacgattt cgatccatcg gactgagact ctacgagtca ctcacgctcg 60

gtcacgaatc ttccggcana gatatcggag aactatccct ctttggaat taacaatcan 120

ttcgagatct tctgatacat ctaagaagga agaactctct gtacaaatat caattcctcc 180

tcaagttgat caatcaagac ctgaaggttt gacattcgat cgtttacaan ctccggagcc 240

agagtttggg catgangata gatttgagtt tggtaaattc gtagctacga naagctatgc 300

ttgatgaatn aatattgggg taatgtcact cccantgaaa gatatgttng attactacaa 360

nnnggaantt ggcagagcan gatttaatgc cantaaaaga aagatgttaa aggggatcca 420

ngncagaaat gctcatgtac cgttgcngta agaagg 456

<210> 2900

<211> 477

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-020-Q1-E1-B5

<400> 2900

aacctccaaa tcgtgaggaa atccagagtt ccatcagatc taactctctt agatctgatt 60

atcatggatt actctttcct tctaatacatt ctcttactca caatctctac ttcatgttgt 120

gctgctcctt cttcttatgt ggaagaacaa ttgagagaca gaatcagtaa cttacctgga 180

caacctagta atgtcgattt tagacagtac tcaggctatg tcaactgtgca tgaagaacgt 240

ggaagagctt tgttctactg gttggctcag tctccgttgg cccgtgaccc aaagtctaga 300

cctttgggtc tgtgggtcaa tgggtgncct ggggtggtcct tccggttggc ttaanggtgc 360

tgctgaaaga aaattggncc ctttttcgtg gttnggntcc ngaatgggca aagaactccn 420

tcaattccca aaacttttaa ngccttgga ataaaatttg gnaaaaactt tgccaat 477

<210> 2901

<211> 455

<212> DNA



<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-020-Q1-E1-B6

<400> 2901

gcncctctgaa gaatccgtca tggcgtcgtc aagcgatcct tcaaaaccag taatggagag 60  
gaagaagaaa ggagctccga tcaaattctt agtacctctc atctacgcac ctgcgcttcc 120  
tttgattcgg ttgtctttaa ggcataagcc agttctaaga gatcgtctct tcggtcttgt 180  
cctcgtcggg gcttttgctc atggcttcta tcttgtaacg gatatatatg atgcagagag 240  
caaatgaaaa actgggagtt gcagtcagtc aacaagatct caatattttc tcagattgtc 300  
tttcagataa ataatttttg ccttttgggt ttaaacctat ttgacacatg aactaangga 360  
tttttcctta tgaaaccatt tagtcatcct ggaaatggta acatcctttt tacaattttt 420  
caatccccgg tccttggatt aaaaacaaac aagcc 455

<210> 2902

<211> 452

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-020-Q1-E1-B7

<400> 2902

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cgaactaaga actcactgta ataaaacttt taaaagggtgt aaacaccaat ggcagtttat 120  
tacacaagta atgtcggttg ttaccagcaa gaaccaatct ttctcaacca tcaacaacaa 180  
aaccaacaag cttcttcttc atccgccgcc gcttctttca ccgtcaccgg cggcgatact 240  
gttcgaaaac agatgggttt tatcccacca accaccacag gagacgttgt aacaggaaac 300  
ggtaccgttt caagcagcga tctaagcttt cacgatggtc aaggactgtc tttgagcctt 360  
gggtactcag atctctgttg ctccgtttca ctttcacaat accaattggg gggtacnanc 420  
agaatccctc aattcagtca aggaaangtc ac 452

<210> 2903

<211> 456

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-020-Q1-E1-B8

<400> 2903

tcgtttgcgt ttgcgagaca ataaagacgc tactgatata ctagaagttt caccagcaaa 60

ggatcttgaa gaaacaaact taacttgtga agcatcatcc tttttgtcta ttgatatgaa 120

aaaaaaaaaa nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 420

nnnnnnnnnn nnnnnnnnnn nnnnnnnntc tgaaaa 456

<210> 2904

<211> 431

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-020-Q1-E1-C10

<400> 2904

ttcttccctt gtaaaccact caatcaatca ttgatcatgc ctcgtaactt caacttggtg 60

ttagttctgg tgatcattgc tctgtttatt actaaaaact cacttggcag gcttcttgag 120

ggatccactg gtattatcaa tggtttcctg acgtggacaa acaccaagaa gcccgtyggac 180

gctgaaagct gtgtcgaggt cggttgtgca attatatatg acgttggtgc tctatatatt 240

ttatgttggt cattgtattg aatgtatcgt gtgggtctgtt atctactcaa gtcggctgta 300

acattgtgaa ctactttatc tgtagaagct attactttat ctteggattt tggtttgga 360

actgctctaa catgcgctgt taccatcang cgcttgaca aaacaaagca gacatgatgc 420

cagattccca a 431

<210> 2905

<211> 572

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-020-Q1-E1-C2

<400> 2905

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taccaaaagt tgtgagcctt gaattaaatg gggaactagt tgaggggaat attatcaagg 120  
gtcaagcagt ggttgcattg tgtggtggga caccaggaaa gtgtattacc agttggttga 180  
ggagaaagtg gaatgggagc cctgtggtga tcgatggagc tgaagatgag gaatatatgt 240  
tatctttaga tgatgtggga tcaagtatgg ttttcatgta cacaccagtc acagaaggag 300  
gtgcaagagg agaacctcag tataagtaca cagagttcgt aaaagcagcg cctccatctg 360  
ttaagtaatg ttccgaattt actgggaaga atgctgtttg aaaggctgcc gttcctcaaa 420  
gggggggttg ggagaattaa tttttgggan ggcaaangn aaaggctcct aaaccaaagt 480  
tttccaaaat tgggnattacc gggaaagaaa acaaagggga aaaccangga agaaaactcc 540  
tccctttgaa taatcccggg cttgggnaaa cc 572

<210> 2906

<211> 527

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-020-Q1-E1-C3

<400> 2906

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ctctctcgat tggatatctt cgtccgtcc ttctcagat ctgatcgctc gccggttttc 120  
acgatgccgt ctctctctc cgcgcgcgtc ctggtgttcc ttcttctcgt ttcctttctc 180  
actctacgt tcgcatecga ttcagatcac aagtatcaag ccgaggagca ggtcaccta 240  
tggttaaaca aagttggccc atataacaat ccacaagaaa catacaacta ttacagtctt 300  
ccattttgcc gcccatctgg aaacaatgtt cacaatggg gtggtcttgg tgaagttcta 360  
ngtgaaaatg agctgattga cagtgant gcgataaaaa ttcaatgaag aaatgtcgaa 420  
gagaaagtgt catcctgtcc gccttgaact ccaatgaagc cnaagggtcaa gcaattttaa 480

aagatggcca attgaatcca anctaactgg gttcgaaatt ttttaan

527

<210> 2907  
<211> 465  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-020-Q1-E1-C5  
  
<400> 2907

ggaagaatcc acacacacac agaagaagaa tctcatcacg aatttttagct atgggttcaa 60  
tccaacacag agcacacaga agaggatgtg acagaccaga tgggtggaag atccgctctt 120  
ccgaatcagt ttgaggataa aaacccgcta aacttcccgg gactccgcag agatgtagac 180  
gccatcgaac gccatttctt gagcggaatg aagagtttct ttgatgctggc tgaagagatg 240  
acaagcagct tatttgatat catgggagac catcacccaa gcaccaggag aggagggata 300  
cccattgaaa accatcccaa ggtagaggag caccgcaatg acgaaactgc cctacacgac 360  
cacactcttc tggcgagatt gatttctccg ggccttggcc aaggacgttt tgagaaaagn 420  
cntctgcntc ntctctctcc ttcctttttt ttttcacaaa ggctcg 465

<210> 2908  
<211> 456  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-020-Q1-E1-C9  
  
<400> 2908

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ttagacaagc anatatgana cccccagtta caggaggacg tgggtggtgga ggattcagag 120  
gtggaanaga tgggtggtgga agaggttttg gaggtggaag aagctttgga ggaggccgta 180  
ctggtgacag aggccgtagt gggcctcgcn gcagaggacg tgggtgcgcct cgtggtcgtg 240  
gaggaccacc tcgtggagga atgaaaggat gaagcaaagt gattgttgag cctcacagac 300  
atgcnggagt gtttattgct aagggtaaag aagatgctcn tgtcactaag aatttggttc 360  
ctggtgaaac tgtttacaaa tgagaaanag aatcncctgt tcaaaatgaa tattggaact 420

aaangttgaa tacagagttt ggaatccgtt taaatc

456

<210> 2909  
<211> 519  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-020-Q1-E1-D1  
  
<400> 2909

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gtccggaagt gagagacact gagacttgta gttgaccgga tcattctcac ttcgccggcc 120  
gacgttcttc cttccgccgt cggtatctat atttacgac caccgatctct cttgctgttt 180  
ctgtcttcat cgtgacgaaa atggctgctc gtatcgggat cttctccgtc ttcgtagctg 240  
tattgttata tatttctgca ttttcctcag ctcaggatct ccagatcgta aatgccgagc 300  
gaaggattga tttaagctca catatcgtga aggcccttctt gactctcaag gttgaaaata 360  
ttgggaaaga tcttgctgca gaaatgcttc ctgctttccc aactaccag atnaagaaat 420  
tggttaaggt acaagcccct ggcaactaac tggcaaagaa agaagaagaa aacttaattt 480  
gccataaga tttaaaacca actgaaacaa cctgaagca 519

<210> 2910  
<211> 456  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-020-Q1-E1-D10  
  
<400> 2910

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tgagaggaga gagaggaaga aaaaatggga gagatgaaga gtatgcaaat ggggtgtgatt 120  
ggagcattgt ttctatcagt tgcattctct gtctccattg tcatttgcaa caaagctttg 180  
atgaccaatc ttgggtttccc ttttgcaaca acacttacta gttggcattt gatggtaaca 240  
tattgcacac ttcatgtggc atataaacta aacttctttg agaataaacc aatagacatg 300  
agaactgttg ttctctttgg cctcctcaat ggcatttcca ttggtctcct caatctcagc 360

ctcggcttta attccatcgg cttctatcaa atgaccaaac ttgctatcat accattcact 420  
 ggtcnttaaa aacctcctcc tcaacaaaga aattca 456

<210> 2911  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-020-Q1-E1-D11  
 <400> 2911

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 ggaggaactc ctaccggccg gttcaccaat ggacggacca tcggtgatat cgttggggaa 180  
 gaactcggat cagcgaacta cgcgatcccg ttcttggcac cagacgcgaa gggaaaagct 240  
 ttattagccg gagtgaacta tgcattctgga ggaggaggaa tcatgaatgc caccgggaga 300  
 atctttgtga atagattagg tatggatgta caagttgatt tcttcaacac tacacggaaa 360  
 cagtttgatg atctacttgg aaaagagaaa gcaaaagatt acatagccaa gaaatcnata 420  
 ttcttcaatc actataggag c 441

<210> 2912  
 <211> 485  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-020-Q1-E1-D2  
 <400> 2912

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 cttcttccga cgacgaactgt tactccctca aggtatgtct cctccgtctc ctcttttctc 180  
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 acacgatcga tctccgtcga tgcgttgaag ccaagcgaca ctttcccgcg ccggcacaac 300  
 tcagcaacac cggatgaaca agctcanatg gcgaaattac tgcgggattc gataatccca 360

aacaacgttg attgattcca actgttccccg aaaatccgaa ttcggttaan attcnaattg 420  
 aaantttttc cggaataat ttngatnaaa gggnttaanc gggngaattc aaaatgaatt 480  
 ganca 485

<210> 2913  
 <211> 503  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-020-Q1-E1-B3  
 <400> 2913

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 gagctccggc ggtgacgtcg gcttcggtgg ttgagcaaaa tggtttgat gctgacaaac 180  
 atgcgatagc tgtggctgct gcgacagccg cgggtggcgga agcagctctt actgctgctc 240  
 atgcggcagc tgaagtcgtg agactaaca gcggaacgg cgggagaaac gtcggtggcg 300  
 gtggaaactc gtcggtgttt caaaatagga agaagtaacc gtcggtgggc tcaaggagaa 360  
 tatcgccggc gatgaagatt caatcccgct tttccgtggg ttatcctggg cgaaggagaa 420  
 gcaatttacg angcaactaa aagggcantt anntgaaagc cttcaaagca attaanntga 480  
 anaagggaca caatanntga aga 503

<210> 2914  
 <211> 505  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-019-Q1-E1-H2  
 <400> 2914

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 accgtcccaa caatcacgcy ccgctccgt atanatatct tacgccaatc acctctctcc 180  
 tcttctcttc tctaaacga aacctctct aatcgacca attctgtttc tcgtcgttgt 240

tattgttcga gctctgcat aatgggttct ttcggtgttt ggccaagcaa ttacagtatc 300  
ctgcgactcg gcgtgatgat tccgtcgtcc gatgactatc aaggggtcaa gatnggagat 360  
ncgtaccgtt gggtagagga ttctgatgct gaagaagtga aagagttggt caagaagcaa 420  
gtnaaattga caaaatcctg tacttgaaaa agtgtgaaac aaaaggataa gctccgtcan 480  
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<210> 2915  
<211> 476  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-019-Q1-E1-H5

<400> 2915

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ggtggttgag aatctgcaat caatctccgc ttgtggccat gtctttcacg aactttgttt 120  
gcagcaatgg tttgagtatt gcccgagtac gaacaagcga aattgtccga tttgtaagca 180  
gaagtgtctc ttaaaggatc cttgtcgact ttactttcag tcttctggga atcaaaccga 240  
ttcgattgcc tcggataagg ttgttggaat cgaagaagat ccggttttgt tgagaagaga 300  
agtgaagcgg ctttgaaggg aaggtacaga atcttacttc ggctctggga aggcgaagaa 360  
aaaaggagaa tgtttgaagt cccctgataa gttgcatcaa tgcaatgaag caanttgaan 420  
ggaggataaa gttgaaaang tggggaaggt ccttcaaaga aatatcaacg aatcaa 476

<210> 2916  
<211> 438  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-019-Q1-E1-H9

<400> 2916

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ttcctacact tggggctgct attcttccaa tctccgatt tcaatttcat cctctcaatc 180



atagtttgaa atcatcgagc ttttacggtg ctggttggtgt ttgacgccgt aaaattcgat 240  
 ccttttttat acatttgatg ttgattttat cgatagtttt gtgagatcga ttttttaggg 300  
 tttcgagttt ggcgctgact tgagggtttg attggatgag aataaggggt tatgggactt 360  
 gagtcaattg ggtttgtccc cctaatacgc gcaaattcct gaattctcaa ctccctggga 420  
 agggantaag gatccgtt 438

<210> 2917  
 <211> 537  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-020-Q1-E1-A1  
 <400> 2917

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 gccacatct cctccgtcct cttgagatcc ttctcttcat tcattttctt gctcaacttg 120  
 agttgcttcc aacatcttgc aagattgtct ttgagttcat tcaggtcttg aagaagagca 180  
 ctcttttaag ctgtgtgaaa cttgcgccgt tcctgtgaag aactactttt ggcattgcag 240  
 atttcagaga gctgtgattt gtgctatctt aaaaacggac aagttctatg ttgtggcgga 300  
 tgagatgagg gatgctatct gggttgatga attttctgaa tgccctgtctc tgggcacggg 360  
 cagatnagca ngctccgtcc tgcctcagan tccgggtggg ccgccaaana agggggttgg 420  
 ctcccnnggt tcaagaanac tccgggnca acaacgntcn tttggngaa cntcctccca 480  
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<210> 2918  
 <211> 446  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-020-Q1-E1-A10  
 <400> 2918

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 cgagcttga aagcgtctct ccgctaaca cggttccac gtcaccgtct tcgtcctcga 180

aaccgacgca gctccgctc aatccaagtt cctaaactca accggcgctc acatcgtaa 240  
 acttccatcg cggacattt atggtttagt ggaccccgac gaccatgtag tgaccaagat 300  
 cggagtcatt atgcgtgcag cagttccagc cctccgatcc aagatcgctg ccatgcatca 360  
 aaagccaacg gctctgatcg ttgacttggt tggcacagat gcgttatgtc tcgcaaagga 420  
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<210> 2919  
 <211> 497  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-020-Q1-E1-A11

<400> 2919

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 gatgtaccgc atctctccga ttaccttctt ggtcttctta cttatcctaa tccattgcaa 180  
 gacaatccag cttactcagt ggttaagcaa tactttgttg atgctgatga cagtgttcct 240  
 caaaagatcg ttgttcacaa ggatgggtcca aggggggattc attttagacg agccggggcca 300  
 cgtcagaagg tatacttcga atctgatgaa gtgcatgctt gcatagttac ctgtggaggt 360  
 ctttgtcctg gccttaatac cgtgattaag agaaatagtg agcagtctat ccttatatgt 420  
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<210> 2920  
 <211> 484  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-020-Q1-E1-A3

<400> 2920

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gtcgattctt tcgaggaaga gcagagaaaa atcgtttata gaggatggaa agtcatgcct 180  
 tttatcattg gtaatgagac atttgagaag cttgggatca tagggacatt atcaaacctt 240  
 cttgtgtacc taacttctgt attcaacctt aagagctaca cagctgcaac tatcatcaat 300  
 gccttttagtg gtacaatcaa tttcgggact tttattgctg cctttccttt gcgacactta 360  
 ctttgggtcg ctacaagact ctcaattgtc ccttggtcat cgcttgtttt ccgggggatcg 420  
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 aaat 484

<210> 2921  
 <211> 505  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-020-Q1-E1-A4  
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 ttccaatcct ccgatttcaa tttcactctc tcaatcatag tttgaaatca tcgagctttt 180  
 acgggtgctgt tgggtgttga cgccgtaaaa ttcgacccct ttttatacat ttgatgttga 240  
 ttttatcgat agttttgtga gatcgatttt ttagggtttc gagtttggcg ctgacttgag 300  
 ggtttgattg gatgagaata aggggttatg ggacttgagt caattgggtt tgtctcccta 360  
 atcatcgcaa attcctgatt tctcagctct ttggaaggaa ttangattcg ttgatttcga 420  
 gttttngtt gtgttgggtg atgaaganat tgggtttggn caaattgagg ggttaanggt 480  
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<210> 2922  
 <211> 489  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-020-Q1-E1-A6  
 <400> 2922

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 aagggtcaaag acatgtctca agccgatttc ggctgctctc aactcgagct cgccgaagtt 180  
 gagatgcctg gactcatggc ttgtcgtacc gaattcggac cttctcagcc attcaaaggc 240  
 gctagaatca ccggatctct tcacatgacc atccaaaccg ccgtactcat cgaaacccta 300  
 actgctctcg gtgctgaagt cagatggtgt tcttgcaaca tcttttccac tcangaccac 360  
 gccgccgcaa gcacccgctc gtgactccgc cgctggtttt cgccctggaa aagggtgagac 420  
 tcttcaaggg gtactggtgg tgtaccgagc gttgcccang attgggggtc angttggtgg 480  
 cctgatctg 489

<210> 2923  
 <211> 470  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-020-Q1-E1-A8  
  
 <400> 2923

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 ggagactgcy gcgttacggg aaagagagat gagatcatgt tgttcggagt tagagtcgtg 180  
 gttgatccga tgagaaagtg tgtgagtttg aacaatctct ctgattatga aaagtcttct 240  
 ccggaggatg agatccctaa gatagtcacc gccggagctg gagatggtga agataagaac 300  
 gaaacggatg cgacggtgat tgtcgtgac ggttacgcct ccgccaatga cgctgtccag 360  
 atttcgtctt cctcccgccg ggaaggaaac caaggggggt ccatgggcaa gagaaccaan 420  
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<210> 2924  
 <211> 492  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-020-Q1-E1-B11

<400> 2924

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atgattcaag agattttgat ttttcaagaa aactctgttt ttcctctttt tgtttttgcc 120  
tcttggggca tttggagagc aatggcgact tttgctgaac ttgttttata gacttctcgc 180  
tgtacatgcc cttgccgttc attcactaga aaaccacctaa ttcgtecccc tttatctggt 240  
ctgcgtctcc ccggtgatac caaaccattg tttcgttccg gacttggtcg gatttctgtt 300  
agccggcggt tccctacggc cgttgctcga gctgaatcag accagcttgg tgatgatgac 360  
cactcaaaga atgtggaaga taagcagaag aaagcaagcc agcttaagaa aagagtgatc 420  
tttggatttg gcattgggtt anctgttga tgtgttgtgt tagctggagg atgggtttca 480  
ctgtagcttt aa 492

<210> 2925

<211> 570

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-020-Q1-E1-B2

<400> 2925

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tatacttctt tcaagcttcc atgaggtttc ttgtcaggat gatggtagtg gtttgagtaa 180  
tttggatcta atagaacgtg attatcaaga tagtgtcaat gctcttcaag gcaaggacga 240  
tgaagatcag tctgcaaaga tacagagtga aaaccagaat aacactacag tgactgataa 300  
gaacactatt tctctatctc tatcagatga atctgagggt ggatctgtta gtgatgaaag 360  
cgttggaagt tcgaagtctt gttgggatta aaatcaaacc ttgaantccg aagctcaatc 420  
acaaataagt aattnancca aagcctggga ttctggaatg ggtgggtccaa agggcttгна 480  
aatcccaaag ggaatggaat ggaatgaaan aaanttatcc tggccccaat aggaacaaga 540  
aaaaatggtt ttgggaagga aaatccnaaa 570

<210> 2926

<211> 474  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-019-Q1-E1-H12  
  
 <400> 2926  
  
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 agatttgctc tccggctttg ggactaacat agatccatcc catggtcagc ggataccttt 180  
 ttatgaccat tcatcatcac cttctatgcc tgcaaagaga atcttgagtg attcagaagg 240  
 caagtttcga ttatcttget aaccagtggc agatgataca ctcttggctc ctccctgaag 300  
 ttacatgaat cncctaaagg acctgcaagc aactggatgc ctctctccaa agggcgatgc 360  
 aatgtttaat acaacgaata tccnggtcct aangggccaa ccaacggaaa atgcctgggg 420  
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<210> 2927  
 <211> 517  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-G6  
  
 <400> 2927  
  
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 gtccgcccac gcgtccgttc tcaactaact tagttaggga tatctccgt catggatctc 120  
 aggcggagac agtggttctt gtcggctatt ttgctgtcgg cggcgttgct gattgacctg 180  
 caattctcga cggcggcgac ggcttcggag aatttggtat ttgaagttcg aagcaagttc 240  
 gccggaaaaa gagtaaaaga tcttgagct ctcagagctc acgacgtcca ccgtcactca 300  
 agactcctct ccgccatcga tattcctctc ggcgccgata gccagcctga gtctattggc 360  
 ttatacttcg ctaaaatcgg actcggaact ccatcaagag acttccatgt tcaagttgat 420  
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<210> 2928  
 <211> 502  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-H1  
  
 <400> 2928  
  
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 aaaaaanctt tngacaatgg gcacagacac agcaagnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnatg ttaaacctgc cggagaacgc 180  
 cgcggtatcat ccggttccgg aaccgtcgga tcgtcaggct ccggaacagg cggatctcgt 240  
 tccaccacat ctactcagca gaatggtcgg atcttaggtc ggccgatgga ggaagtacgg 300  
 agaacctatg agtttggtcg tgagcttggc cgtggccagt ttggtgtcac gtactcgtaa 360  
 ctcacaaaga gacgaaacaa caagtcgctt gcaagtcaat ccctacgcgc cgccttggtc 420  
 acaaagacac attgaagatg ttcgccgtga agtcagatta tgcacatctc ancggtcacc 480  
 ggaacatatg gacttgaagg aa 502

<210> 2929  
 <211> 459  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-H12  
  
 <400> 2929  
  
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 gatgaagttc tagnaatacta ccctcatggn tatcatgggtg ttgataaaga aggaaggcct 120  
 gtttacattg aaagattagg actacttgat ccggccaagc tcatgcaagt cactacagtg 180  
 gaaagattca taaggatatca tggtcgagag ttgagaaaa ctgtcaacat aaagcttcca 240  
 gcttgctgca ttgctgctaa gagacatatt gactctagca caacaattct agatgtccaa 300  
 gggcgtgggg gttcaaagaa attttccaa agcctgcgaa ggggattccc ataatccaag 360  
 ctgccnaaaa gaattgatna ccgattaact aaccctggaa nacactttca accggaangt 420

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459

<210> 2930  
<211> 500  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-018-Q1-E1-H2  
  
<400> 2930

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cgacgacaaa cgcttctaata gatgggaagc tttcatgaag ctcttccgat atctcaactt 180  
tatggcctcc ggcgtcgacg acaaccacga cggcgacgac tgaaacaact ccgacgccgg 240  
cgatggagat tccggcacag gcgggattta atcaagagac tcttcagcaa cgtttacaag 300  
ctttgattga aggaacacac gaaggttgga cctacgctat attctgggca accgtcgtat 360  
ganttctccg gcgcctccgt gctcggatgg ggaaatgggtt attacaaaag gtgaagaaag 420  
ataaagcaaa cccgagacgg agattgaatt cgccgccgtt ttctactccg gcggttaagg 480  
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<210> 2931  
<211> 515  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-018-Q1-E1-H3  
  
<400> 2931

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aagatttcga gagaaacgga aaggaaggaa ttttgataag aagattcgggt atacagtccg 180  
caaggaggta gctttgagga tgcaacgcaa taaaggtcag ttcacatctg ccaagtcaaa 240  
caatgatgaa gctgcatctg ctggatctag ctgggggtcg aatcaaacct gggccataga 300  
aagtagtgag gctcagcatc aagagatctc atgtcggcac tgtggaattg gcgaaaagtc 360



aactccaatg atgcgacgtg gacctgccgg gccaaagaac actttgcaat gcatgtggac 420  
 ntatgttggc aaacaaaggt gcctttaagg acttatccaa agcctctcct caaacagcca 480  
 anaatcttcc tttaaataag aatgaagatg caaat 515

<210> 2932  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-H5  
 <400> 2932

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 ctaagtcgtg aaaacaaaaa aaagatggct tgtagagggt gtttggagt tttgttgaag 180  
 ttactcaact ttctcctggc tgttgctgga cntggcatga ttggttatgg tatctattta 240  
 ttcgttgagt acaagagagt taccgataat tctgttacat tcgatttgac taatggagat 300  
 caaagttacn tttcgtttgg gaggcctatt cttaaggctg tgtcacngtc ttcaaanaac 360  
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<210> 2933  
 <211> 511  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-H6  
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 gtggtgttga gcgtggtgga gaacgtggtg atttcggacg aggattcggg ggccgtggag 180  
 gtcgtggaga tcgtggaggg cgtggacgtg gaggccgtgg tggtcgtcgt ggagggcgtg 240  
 ccagtgaaga agagaaatgg gttccagtga ccaagcttgg tcgtctcgtg gcggctgggc 300

atatcaagca gatagagcag atctatcttc attcactccc ggttaaggag taccagatna 360  
 ttgatatgct catcggtcca acattgaagg attaagtaat gaaaaatcat gccggttcaa 420  
 aaacaaacca aaggctggtc aaaaggacta aaattcaang gcctttgttg tccttngana 480  
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<210> 2934  
 <211> 492  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-H8  
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 aagtccttcc ggagaaacaa ttcagagtcg tcaacgaagg agaattcggg gaatacatca 180  
 ctgagtagca cgcaagttac agattcatcg aatcatcaaa ccagagcttc ttcacatcac 240  
 cattccagct cttgttttac aacactaccc ctagcgctta catcttagct ctccgagtcg 300  
 gactcaggcg tgacgagtct accatgcgtt ggatatggga cgcgaatcgc ancaaccccg 360  
 tcggagaaaa cgctacactc tcaactggcc gtaacggcaa cctcgtcctc gctgaagctg 420  
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 ctaaccaacn gg 492

<210> 2935  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-H9  
 <400> 2935

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 gttagaggty ttactagcaa cctgcgcatc ttccaaaaag ccatttcac ttcaaatgct 180

tataatgatac aattcaggac acttgtggaa tcgggaaagg acattgaaag tgcgtattgg 240  
gaacttgtgg tgaaggatat tcaggatgcc tgcaaacttt ttgagccaat ctatgaccag 300  
acagaangtg cggatggcta tgtccctggt gaagtttcan ctangcttgc tgatgataac 360  
caaaggaact ggtgaaagct gcctaaataa cctaacaaag gtttcaaach tccttaagtc 420  
ca 422

<210> 2936  
<211> 431  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-019-Q1-E1-A12  
<400> 2936

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acgggggaag aagatgactt ctgctttgta tgcttccgat ttgtttaagc agctcaagtc 180  
aattatgggg acagattcgt tatccgacga tggtgtactt gtgattgcaa cgacgtcttt 240  
ggcactagta gctggatttg tgggtgttgt atggaagaaa acgacggcgg atcggagcgg 300  
ggagctgaag cctttgatga tccctaagtc tcttatggct aaggacgang atgatgattt 360  
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tgaaggattt g 431

<210> 2937  
<211> 433  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-019-Q1-E1-A7  
<400> 2937

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tgttctctag tgtgaagcta aattggctct ctaagccatc tgtgtgaggg atggaagtgt 180

agaaggtgct gaaacaactc atttggatta gggattggaa ttggattcgt cttgtggcct 240  
 ttaccgtgggt agggatttag atggtagaga aagctagggt agattaaatt ttttgaaga 300  
 agagcttctc tgttgttgtt ggtggggggt taanaaaggt tanagaaaat gtgtgttcct 360  
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 ccggaatggg ttg 433

<210> 2938  
 <211> 462  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-019-Q1-E1-B1  
 <400> 2938

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 aaacttttta aaacatgtac ggaggcgatt ttgacggcaa cgctgctttc gccgngggcg 180  
 gcttcatgcc ttctcaggcg actacgcaag cccatgaatc ctcatcttcc ctcaagaacc 240  
 gcgatgtacg taccttgctt cccctgacac tgaagcagtt gagcagcgca tcaaccactg 300  
 gcgaatcaaa tttctctatt gatggcggtg atattangac tgttgtaatc gttggacnga 360  
 tttcctagaa tggagaacag aatcactcan ggtcnaatth gttggttgat gacggtacag 420  
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<210> 2939  
 <211> 464  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-G5  
 <400> 2939

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 cctgatcagt acaactgtat ccacaacgct ccaactccag ccatggattc tcttaaacat 180

ggngctcctg atacttggac tttgatcaaa gctcacggta ctgctgtagg acttcctant 240  
 gaagatgata tgggaaacag tgangttggt cataatgctc ttgggtgctgg tcgtatcttt 300  
 gctcaagggtg ctaagctttg tgaccaagct cctgcntctg gcaaaatcct ttgaaagtga 360  
 angttttaaa tacgtttctg aatccctttca anaagaatac tttgcaacct ggttggactt 420  
 ctcaattaac ggtgganttc aatccccttc ccgattaaac aaaa 464

<210> 2940  
 <211> 462  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-E8  
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 tctcaaagaa gacgacgttc ccggcgctga ctactctct tctcaactg gatttnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 nnntttttcc gatctaggta atccggatc cgatccgta ccgacgccg agattgatga 300  
 gaaagacgtt gtggttatca aggagcgtaa cttactgat gtgattgaga ataataata 360  
 cgttttgggt tgagttttat gctccgtggt gtggtcattg tcagtctcct gctcctgaat 420  
 aagctgctgc tggcacggac ctaaaggaan atgggtgttg tt 462

<210> 2941  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-E9  
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 gcttcttct tttgtacta gctctctct cttctccgaa aatggcgta caaaacaaag 120  
 aagaagagaa aaagaaagtg aagaagttgc aaaagagtta ctctgatgt ctcggaatct 180

gttgtagatc ggaagttcct ataatcgaga atattctcaa gtcacttgac ggcgttaaag 240  
aatattccgt catcggtccc tcgagaaccg tgattgttgt tcacgacagt ctctcatct 300  
ctcccttcca aattgctaag gactaaacg aagctagggtt agaagcaaac gtgagggtaa 360  
acgggagaaa ctagcttcaa gaacaaatgg ccgaaccctt tcgccgtaat ttccggctta 420  
ctctctctct aacctccta aaagtttgtc taatcgccnt tacgttg 467

<210> 2942  
<211> 549  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-018-Q1-E1-F1

<400> 2942

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tctccgatca accatgagca aagggtccagg actcttcacc gatatcggca agaaagccaa 120  
agatctgttg acgagagact acaattccga tcagaagttc agtatctcca cttacagtgc 180  
ctccggcgtg gcccttacgt ctactgctct gaagaaagga ggagttcatg ctgctgatgt 240  
tgccacccaa tacaagtaca agaatgcttt gtttgatgtt aaaatcgaca ctgattcnat 300  
gttttgacaa caagtcacac ttaccgaga ttctcccatc aacaaaaagc cattggcctc 360  
ccttcaaaag tccctggatt ataaattccg gccaaagctc cgaanggtgg caaataacnt 420  
tccaacgaac caacgccaac aagttaacc ggctggctgg caagcctttt gaaaacaaaa 480  
aaccctaacta aattgacaat taacaaagct aactcccttg ggttcgccca agtcaacctc 540  
aatatttggg 549

<210> 2943  
<211> 468  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-018-Q1-E1-F10

<400> 2943

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atgttgctgg cgcttggtt tgctttactc agcatcttcg cgatcctctt gtcgttatca 120  
accttgctta atggattact tcaacctcgt aggatttctc atggcttgac ggaaagtagc 180  
aagtacttga cgagggatga gctctgggtc aatcaaacc tagatcatta ctctccttct 240  
gatcatcgcg aattcaaaca gcgatactat gaatatctag accatttacg agttcctgat 300  
ggacctatct ttatgatgat ctgtggcgaa ggaccttgca atggaatccc caatgactat 360  
ataactgtgt tagcaaagaa gtttgatgca ngcattgttt cacttgagca tcgttattac 420  
ggaaagagct caacgtttta gtcattagcc actgagaatc tcaagtat 468

<210> 2944  
<211> 489  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-018-Q1-E1-F3  
<400> 2944

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tgggccataa accagagaca aggctcaagc caactctgct tctatctatc tctcactcta 120  
ctcataaaaa tctccatata cgcttcttct tcgttctctg atttgctggg gcgcttctcc 180  
gtcatcggtc gccgatcata gtcgatcccg ccgcttccag atgcttattc cttggcctga 240  
tgggacacaa gtgatatcag tgttaccgtt gatagagtgg tgttttgggt ctgttttggt 300  
gtgagcgtat gcctggaaat aagtncaact gcaattcctc tcatatccca ntctctcgaa 360  
cagaaagcct ccttgagaaa tagaagaacc ttanaagaag aaagaaggaa gaagcaaacc 420  
gaacctccgt aaatccctaa tggacnttgg ctgggcaant ttccgaaaaa ctctgaana 480  
attgacttt 489

<210> 2945  
<211> 505  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-018-Q1-E1-F4  
<400> 2945

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cagatggaaa atgttttgaa cgtgacacat ggagagaaat aaaggaagac attgaacgtg 120  
atangtctga gaatgccagc tcctctgatg cagttgttat atctcaagaa atcacagaaa 180  
agaagcctgt agaaataaga gaggttgaat cgaatgcacc tcgcgccagt gattgtaccg 240  
agaaagtaga tgtcaacaag gaacgtcttc ttaaagtccc catagatagg gctctatata 300  
agaaggcact aacatcactt gttgattcca aaattccaca agaagaagtc ttggagatca 360  
atgaaactaa taagctagat gaggaagcac tagctagtgc tgaatttgtg tcctttgtgg 420  
actgtactcc tgaaaanggtc aaatctatct ttgagaaagg caaattgggtg aanggttgct 480  
ggctaaggat ttcctttgac ataaa 505

<210> 2946  
<211> 499  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-018-Q1-E1-F5  
<400> 2946

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cgtcggcgat agctttctctt ccactaaaag aaaatcctct tcggtgagaa tggcagagca 120  
tttagcttca atctttggta ctgaaaagga tanagtgaat tgtccgtttt actttaagat 180  
tggtgcttgt cgtcacggtg accggtgctc acggcttcat aaccgtcnca ccatctcgcc 240  
gacgcttctc ctctcgaaca tgtaccagag acctggacat ggataactcc aagtgggtgg 300  
attctcaagg ggaaaagccg tttagaccog anttangatt caaagaacaa cttttgangg 360  
atttcnaacn aacnataatt tttccnaaga aactnaaaca aagnttttgg ngnaanttgg 420  
naaaagttcc ccaatgggtt tggtgaaaaa nccnttggcn ggattaattt ngaattggg 480  
aatggggta angttcgg 499

<210> 2947  
<211> 469  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations



<223> Clone ID: LIB22-018-Q1-E1-G10

<400> 2947

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attaaacctt tcaaacgcag ctccaatcga ggtaagatcc gtttgatttg ttgattctta 180  
gtgtaagatt aggtttttgt gaaatttgac taactttttc ttcgttgact taaaggtctt 240  
gaagatgata ttgagcgaat tgctgctatg gagcaaaaag ttttcccatt tcaagtttta 300  
gtttccgcta ccaaagattt tcacccgacc cataaactcg gtgaagggtgg tttcgggtccc 360  
gtcntcaaga ttacctgacg ggagagacat ancagtgaag aagctatctc aagtttcaaa 420  
ggnaaagnaa aaacnagttt gtgaacgaag gtaagttggt ggctaaaat 469

<210> 2948

<211> 507

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-018-Q1-E1-G2

<400> 2948

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ttactgtttc tctctttttt agatcagctc ttgcggagcc aaagtcgatt ccttcaacgt 120  
ctatgtaccc taccttgac aagggtgatc gcgttatggc ggagaaggtc tcatactttt 180  
tcaggaagcc agaggtttca gatatagtaa tcttcaaggc tcctccaatt ttgctggaat 240  
atccggaata tggctacagt tccaatgatg tattcataaa aaggatagtg gcaagtgaag 300  
gtgactgggt tgaagttcgt gatgggaagc tctttgtgaa tgacattgtg caagaagaag 360  
attttgtctt agaaccaatg tcatatgaaa tggaactaat gtttgtcccc aaaggttatg 420  
tctttgtcct tggtgataac cgcaacaaaa agcnttgact ccataactg ggggtccact 480  
ttcaataaag aacatccntt ggaaatt 507

<210> 2949

<211> 488

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-018-Q1-E1-G3

<400> 2949

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aagaccagca agaangcggc taagaaggaa gctgccaagc tanagaagtt aagacgtcgt 120  
caagaacaag aggaagcaac gcgtcnaaca gcttcgatct ctctggaaga gaatgacgag 180  
ttttccaata actacggcna cgtgactctt accgagttgc aatcgtcggc ggatccgaaa 240  
gccgggaagt ggatanaggc tgttgaggga aangagtgga ccgatgtnag ccattttgggt 300  
ggaaagagat gttggaatca aaagttctga tnaaaaggcc gagttcacac gaatcgtcca 360  
acgtctaaca aaanttgggg gtttgtngtc cntgaaggga aaaccggatt aaactgttca 420  
attgcgttgg ttaaccaatc cagngaaaga ccaaagttta ggtngccaac aatgggttaa 480  
attacctc 488

<210> 2950  
<211> 523  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-018-Q1-E1-G4

<400> 2950

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tccgatttac acggcgtctc gggccatcac gagcctaatt ccgaacctcc aattccgaca 120  
ggttcgtcga gtccgaagct gaagattagt cccaaattga atcggtggtc tangggccga 180  
gctttaagat ctggtgttaa gcttgaccgt ccaattcccc gttccgataa ctcacctcgc 240  
cgtcaagtaa cggaagccca accgaccgat gaggctgata agaagacgac ggcatcgac 300  
gtggaggtaa cggcgggaaa gtctatatat ttggtttccg acggaactgg gtggacggca 360  
gagcattccg ttaacgccgc tttgggacaa ttcgaaagat ttttccgttg aatcgtggct 420  
cctctggtga ataccatct cntctcctgg ggtgaaggat taagganaag gctaancgag 480  
aattattaag caaagcggna aaaggaaagg ggaaatgtnt ttc 523

<210> 2951  
 <211> 502  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-E5

<400> 2951  
  
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 actgcggaat ctagcaagtt ctataattca agtatgtatt gggatgagtt catttgggggt 120  
 ggtgcttggga tgtattatgc taccggaaat gtaacgtatc tcaatctaata cacccaacct 180  
 actatggcca agcatgctgg tgccttctgg ggtggccctt actatggtgt atttagctgg 240  
 gacaacaagc ttgctggtgc tcagttgctg ttgagccggt tgaaggttgt tcctgaatcc 300  
 tggatatcca atatgaaaga aaattctaaa ggaccttcca acaatcaaga ncaagcaata 360  
 antccatgtt gctcaataac tttgccc aaa ttttcaaaca aaattttaac aagaaaccaa 420  
 atgggagggt ttaataanaa ntttgaatcc attgganctc caanaagccg cctgcaataa 480  
 ttccggtaaa atgcaancct tt 502

<210> 2952  
 <211> 487  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-D3

<400> 2952  
  
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 agaacagaac tcagccatgg nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnncg ctaatctcac cggcgatttc acaacaggct tgcaaatcac agaacttgaa 180  
 ctccgccggt ccgttcgata gttgcgaaga ccttcgggta ctcaattcct acctccatta 240  
 cacctacaat tcctcaaatt catctctctc cgtcgctttc gtcgccactc catctcaagc 300  
 caacggtggc tgggtcgctt ggggctatta aacctacggg ggactaaaga tgggtgggttc 360  
 caaagcctcc cccgcttaca aattcggggc gtggtgccgg tccggtcgtg aagacgttca 420  
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cgccgat

487

<210> 2953  
<211> 530  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-018-Q1-E1-D4  
  
<400> 2953

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agacanagaa acaaattcgc agacaatagt cgaaaatggc tgaaatctcg gcgannnnnn 120  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nncgtagctc ccanaatggg agcttaaaat 180  
gtcagaatgt agctgttcca aaaactactt ccagttcca agagttatct ctgaaacgaa 240  
gccagcttgt tggcaatgcc gttgttaccg gtcattgttac cggatcccgc agctgcaaga 300  
atcaagctat tcgagctgtt ctatccgggtg atggaaccgc cttgactact gattcaaagg 360  
aagctgggac ttcgtgggaa actgaaaaag ggtcgttcta ancttacaat tggaaggctt 420  
agacaactct gtcaattgng cccaatgggc ttaaaggagg aaactnatng gnttgtgaaa 480  
nttgggtgtg cttcaactgg ccngatgntt tgggtcaaggg caataaaaaan 530

<210> 2954  
<211> 459  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-018-Q1-E1-D5  
  
<400> 2954

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gccattcact tcaacgtcgc tcttgttctc tgttctctca ttttccttcc tcttctctca 180  
tctctcatgg tcttgggctt gctctctctg tttatcttta tcccaatcga tcatcgtagc 240  
anatatggc gtaagctcgc taggtacata tgcaagcacg cgtgtaatta tttccccgctc 300  
tctctgttac gtcnaggatt acgaaagctt tcaagcctaa tcgtgcctaa gtctttggnt 360

atgaacaana ttccggtggc taccgaattg gaatttggtg gcnctttgtg attcncacan 420  
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<210> 2955  
 <211> 443  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-D7  
 <400> 2955

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 aaagacagct catcactctg tcaaacttct anagtattaa gttaacgaag cangtacagc 180  
 caaactaaaa taacgcgag ttatgggaat catcgacggt tctttgcttc ggcggttgat 240  
 ttgtctctgt ctctggtgtc ttctcggtgg aggagtgaac gtggttacgg cnnangatga 300  
 taaagaantg gacataaaca cttaatcaaa accccgactt gggctggttg ctgcngttgt 360  
 acttcctcan cgtgggtccg gtctctcttg aaaactctna caaaagttgg aaaggtcnaa 420  
 gggatcggac aaganactct ctg 443

<210> 2956  
 <211> 462  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-D8  
 <400> 2956

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 atcttagcct tctctatctt aattaccctc aaagaagtct cctcttcccc aaaccctacc 180  
 cggaaacccg gttcatctct cggttaaagt cctctctctc tacgtctcta gagatctact 240  
 tccccttagc tggctgtctt gtcaaagtca acaaccatga agacaatagc gtgtcggttt 300  
 acatcgactg tgacgacggc cgtggtgtca aatttggtcca tgctatagcc gaatctgtct 360

cggttaagcga tatecttcaa cctcaaggct ctgttctctga ctttttcaag gctttccttc 420  
ccaaggaacg gtgttaagaa gcatcgacgg gtcctcaaaa nc 462

<210> 2957  
<211> 436  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-018-Q1-E1-D9  
  
<400> 2957

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gatatgagag agataacgat cgacggagac ctcagggtcg tggcgacggg ggaagcggaa 180  
aggatagaat cgatgcactt ggacgactct tgacgagaat attgcgacat atggctactg 240  
agctgagant gaacatgaga agtgatggnt ttgttaaagt tgaaagaatt acttaacctg 300  
aatttgaaaa cttctgcaaa tatcaattta agtcacacac gattgatgaa anttagagaa 360  
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tccttgattc gcgcca 436

<210> 2958  
<211> 512  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 2958

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aaaatccgac agtaattttg accgttggtt tctccaacgt ctctctctct ctctactgtg 180  
tatccctcac gnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnt 300  
ccttttgaca ttttcacaac aacaaatcca aagatttaca acaattctca nccgggggttc 360

tgттаattct gagtacaatc tcaaccctta aataanaaaa caaagcaaaa atctcctcaa 420  
 aggggtttta aaggactaaa agaagcnttg tcttggtana ataaagcaaa agaatccttc 480  
 ctaatggncc tttttcccaa gtttaanggc ga 512

<210> 2959  
 <211> 470  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 2959

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 acgattgact taccaaataa ggagctgaga aagaggagtg agttgcagcc aaccaagatt 180  
 gttgttctga aacctaacct cggggagcca cgttatgctg ctagaacttt tgcacgcca 240  
 agctcttctt ccgatgagtt cagagcagat cgtaggcttc catgcaccac cactcatggc 300  
 aggcagaaaa gtaatgaaga tgtccgcttg tcaagacaga attcaagaga ttgtggagaa 360  
 atggccaaaa taatgtctaa gcaaaggaan gtgagctgtg gcaatggctg tgccatgagt 420  
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<210> 2960  
 <211> 477  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-E11  
 <400> 2960

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nnnnnnnnnn nnnnnaggaa caacattgct acaatgtgga agaggggatc acattttcct 360  
 tactcatggtt ggtattcctc aagaanctcc gaaataacat aacttcctgg tcaatcaatt 420  
 tcaggttaat aaagctccgg ctccgaagtt aatcaaaggc gtccagaaat gaagaaa 477

<210> 2961  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-E12  
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 gttttacccc aacanagtgg gttcagtga gaaaacagag gttgtgtttg tggctccaac 180  
 nggtgaggag attagtaaca naaatcanct ggnncagtat ctcaaatcgc accctgnaaa 240  
 ccccgcgatc gcagagtttg attggacgac tagtgggaca cctatgagat ctgcaagaat 300  
 cagtgagaag actaaggcta cgccgtcacc aagataaaga gccaccaaga aagcgaggta 360  
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 caaggaaact ctca 434

<210> 2962  
 <211> 518  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-E3  
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 gaagtcctga tgccgctatg aaagctctca cgcaagtaat cttgcgatta agagctaact 180  
 ctttcgacat ggatcatgga cttgtcttgc taccaacatc ttttccatat atccctcaag 240  
 tgactgaaag ttcgagcaaa tccaaatcgc cannacgcga tgaccacagt aaactgaatt 300



cgaattctaa ganaagaaac catgtttctt aaatcaanaa aaacaatcct tagagaagga 360  
 anattganaa tggttcagaac tcaatgttga tgcaaatttt atacaatagt aagttacntg 420  
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<210> 2963  
 <211> 508  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-018-Q1-E1-E4  
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 tgcgtaaadc gaatcatgag cctgaggaaa ttcagaaaat gttgaagcat tggggtgatg 180  
 aaagattttg tggtgacct gttgaaagta aatctcctgc ttctgtttat tcagggaagc 240  
 caaaggagga gaattttcta caatggggac ttcaaccgtt tggtagctctg gtttagctctg 300  
 ctgttgtcat gcataccaag aacgaggaga ttatgagggt ttgtatcaga agaggangtg 360  
 ttgatctggg gcaaaagtca tgaacgatgg ctctcaacag tatcaciaag caccctaacg 420  
 tttatatcna ngtgtttggg tccnataact tcaactntga accggtctcc aagaacagga 480  
 ttcctaance atncattgaa cttaacct 508

<210> 2964  
 <211> 457  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 2964

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 aaaaggaaga tgggtgtgac tgattcttaa gatgggtttg tgtaagttt gtgagtatag 120  
 ttgaaagttt cagttcaatt tcaatggagc ctccaatang atttcgagct tctttattcc 180

aattcttact ctctcttccct tatttcattg gattgctatt tctgggtttc atcaaaggtg 240  
 ttgttttgtg cccactcgta tgccctggtg tgactatagg caactccgcg gtcatactga 300  
 gtcttctacc agtccacatc gtttggactt tctattcaat cgtgaagtgc caaacaagt 360  
 aggaccaatc cttgaaagat cttccatgcc taagtccttc ctgctggcan caatcctctg 420  
 gnctaatggt tggaatttaa ggaantgttt tgggaaa 457

<210> 2965  
 <211> 449  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-017-Q1-E1-A9

<400> 2965

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 cggcgactgt ccgttcagcc aacgggctct tctcacactc gaggagaaga gtcttaccta 180  
 caaaatccat ctgattaacc tctctgacaa accccagtgg ttcttggaca ttagtcctca 240  
 agggaaagta ccagtgttta agatcgacga caagtgggtg aactgattcc gacgtcatcg 300  
 ttggtatact cgaggagaat atcctgattc aacactcaag actcctgctg aantgcctc 360  
 tgttgggttc aacanttttg ggtacttttg ggacaatcct tgaanaacca aagactccca 420  
 atgaccggtt tgaacattnc cttgcctgt 449

<210> 2966  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-017-Q1-E1-B10

<400> 2966

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 ggtagcaaat caaagagnct tttggggaaa ttcgacgaag ttcttgagcc ggggttgatca 180

ctgtttgccca tgggtgtttgg gaagtcaagt cgctgggtcac ctttcttttac gtgttcaaca 240  
gctcgatgtt cgctgcgaga caaagactaa ggataatgtg tttgtcacgg ttgttgcttc 300  
cattcaatac cgtgccttan cggagagtgc tcaagatgct ttttacaagc tcaacaacac 360  
gaaggaatcc agattcaaag ccttangtcc tttggatggg gattccgaag caaagtgttc 420  
cctaaactgg gttctaaaac ccaacctttt gagcaaaaang aatgacaatt gcaaa 475

<210> 2967  
<211> 471  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-017-Q1-E1-B11

<400> 2967  
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tggcgtggag tggcggaag tgaggatgcc ggaatgagta cgcgcaaate caagtgaaaa 180  
ccttggacac cgtaaaccac aggggttcctg cgccatggca atcagcgagc ggtgaggcgg 240  
agcctaaggt gaggccccag aggcgtagcc gatggtaaac gggttgacat tcccgtccc 300  
tcttgacgtg tcaagcatt caaggacacc ggaacgaagg ancaaccggc tgtgttgatt 360  
ggccgttcta aggggttaag catcncccca aggcaaccna aacctcatgg anaaaatgcc 420  
gggccaaccc aaggtcaatt gttctggaat ccacgggcaa aaaaaactga a 471

<210> 2968  
<211> 455  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-017-Q1-E1-B2

<400> 2968  
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atcagcctaa aagtgatctc tcataactgc ttaaaagatt gttgaaactc gaagatgtct 120  
ttggccgaga taaacaagaa tgaagtcgac attgttattg gggctcttaa tgctgacctt 180

acacagtttt tgaccagctg gaggcctttc ttctccggat tccatctgat tgttgtaaaa 240  
gatcctgagc tcaaggagga actcaacata ccagaaggct ttgacgtaga tgtctactct 300  
aaagactgac atggaaaang gttgtgggcy catccaaatc caacaagttc ccttgggcta 360  
attcctgcag ataattccgg ttaaccccggt aacctaataaa agaanttcaa ttgtcctcna 420  
atttgatgaa tgaattgtgt tccctgggta aaana 455

<210> 2969  
<211> 489  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-017-Q1-E1-B4  
<400> 2969

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cgtctttttc ttttgattct gcttttttcc gctaggtttc tgagatcttc cattcgtctc 120  
gaattaagtt gctacgatga aaacagcana ggggaaagat aaagttaaga ccacaaagga 180  
agccttgaag ccagttgatg acagaaaggt gggaaagagg aaggcaccgg ctgagaagcc 240  
tactaaacga gagactcgta aagagaagaa ggctaaaaag gacccaaaca aaccaaana 300  
agctcctagt gccttctttg tctttctaaa agattttagg gtcacgttca agaaaagaaa 360  
atccaaatgt naangccgtc tctgctgttg ggaaagctgg agggcanaaa tgggaantca 420  
atgtctcaag cctgaaaaag ctccatatga agagaaaagc tgcaaaaagg aaagctgaat 480  
atganaaag 489

<210> 2970  
<211> 488  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-017-Q1-E1-B7  
<400> 2970

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acctaatacg atctgtgaag tcaaaacact ttccagtttc agattctgat tatggcaaca 120

ccggagactc gtggcggttga ttccgattta gagacagcgg agaagataat actccggtgg 180  
gattcaacaa catctgaaga agctaaagag aatctgattt tccaaagcgg tggatgatcga 240  
gaagaagtag atcgggtactt gaaagctgta gatgaagttc aaagacacat ctcttcaatc 300  
tcaatctccg atgaagtcaa agcaacgatt caaatcgcca tggctagact cgaggacgag 360  
ctaagaaata tcttaatctc tcagacnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 420  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnncgta cggagcttga agatgacact 480  
tgcgatga 488

<210> 2971  
<211> 431  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-017-Q1-E1-B8

<400> 2971

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actaaaatgg gttcaacggn agagacacaa ttaactccgg tgcaagtcac cgacgacgaa 120  
nctgccctct tcgccatgca actagccagt gttccggttc ttccgatggc tttaaaatcc 180  
gccttagagc ttgaccttct tgagattatg gccagaatg gntctcccat gtctcctacc 240  
ganatcnctt ctaaacttcc gacaaaaaat cctgaagctc cggatcatgct cgaccgtatc 300  
ctccgtcttc ttacgtctac tccgtcttaa cctgcncanc cgtanacttc cggatgatggc 360  
gttgaacgga ttacnggctt ggtcnggtg caagtattgc caatnacgaa gatgggggttc 420  
aatgctgcnc t 431

<210> 2972  
<211> 439  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-017-Q1-E1-C1

<400> 2972

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nngaaaatct agaagaagag aaagctacaa 120  
 aaatctcaac atcgaggtaa gagttttggc tacagagcaa ccatgctaac ttgcgccttc 180  
 tcccaaaatc ttatccacta atctcggtaa ggaaagtgat gttggcaaaa tggatgaagaa 240  
 aggaagttgg ttttctgcta tcaaaagggt ttttactcca cattccnnnn nnnnnnnnnn 300  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnntt ttgggaagct 360  
 aangnatggc gagaccaatt caattcttcc catcttcaga gagcctanta gtatcgaaaa 420  
 gatnttgggc gaagctgag 439

<210> 2973  
 <211> 480  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-017-Q1-E1-C12

<400> 2973

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 nnanacaann cnaaanggng atgattacnc gcaanaccgc cacgcgcctc cctctcctcc 120  
 tccaatctca acgcgccgtc gccgctgcct cggtctctca cntccacaca tcccttcccg 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnnnnnnit aaagcggccg aatttgtgat ctccaaggct gatgatctca 300  
 tgaactgggc tcgtaccgga tcgatctggc ctatgacctt tggctctcgt tgctgcgccg 360  
 tcgaaatgat gcataccggt gctgctcgt acgatntcga tngattcggg atcatcttca 420  
 ggcctagtcc tcgccagtct gattgtatga ttgtcgccgg taccttaaca ataagatggc 480

<210> 2974  
 <211> 517  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-017-Q1-E1-C2

<400> 2974

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gcagaaaatc gttgttgtgg acagcgagat gccaaagcaga ggaggatcag aaatgaggag 120  
aattgtgagt tttgttggcg gtattgatct ttgtgatgga agatacgaca ctccgttcca 180  
ctccttgttc aagacattgg acacagtcca ccatgatgac ttccatcaac ctaacttcac 240  
tgggtgctgct atcactaaaa gtgggtccaaa gggaancctt ggcatgacan tcaactccccg 300  
ttcttgaaag gnccaattgc cttgggaagt ccagtncaaa cttcnaacca aanatgggnc 360  
caanccaggg tggtaaaaaa cattccccggg ttaaattnan aaaattntta agggaaattt 420  
attaacaacc ccttcnccgg ttaagnttcc aaaaagggcc cccaattttt ggaaagtccc 480  
aattnttaag gcccatngat ngaggacccc ccctgg 517

<210> 2975  
<211> 493  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-017-Q1-E1-C4

<400> 2975  
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aaaagcaaag gatacagatt gcacgtgctc tctaccaaga tgctgatatc tatctgttcg 120  
atgatccttt tagcgctgtg gatgcacaca cagggtcaca tctctttaag gaagttctac 180  
tggggctttt gtgttccaaa tcggttatat atgttactca tcaagttgag ttcctaactg 240  
ctgctgaten taaaccggnc ntgaaagatg agaatengcc naggcngnaa attccaatga 300  
nancncaat ccngganctg attccangga ccttaaaggt gcacatcagg gaggtctctn 360  
caatatttga cctgtagaat gnaatttcn gtttctgaaa aaatcaacnt ttaggccaaa 420  
naaatgtta attgtnaaaa anacctaana cccctgtttg attaaaaaac ctaaaaaagt 480  
ccagggtttt gaa 493

<210> 2976  
<211> 441  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-017-Q1-E1-C5

<400> 2976

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gtattaagag attagtcgac atagcaaaag tacaacaana acaanaanac accangaaaa 180  
gaacacatcc ctttctctta ccagaatcc tctcttggc ctcagttcac tcattagatt 240  
caccancaa aagaagagta aagaccgaaa caagccggat tcaacaacta tacaatgttg 300  
caggtgttcg ttttcttca gtttcttttg ttacctaaac cttttttcgt ttttaagagat 360  
gttcgatnac aagaacacgc agcgggttct ggctcttttc ttcctctctt gtntccgtgg 420  
gctgaaancc cactttttat g 441

<210> 2977

<211> 491

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-017-Q1-E1-C9

<400> 2977

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ttngtncctc cttcctnaac gggncnnnaa nctagtgggg ganctaacnc atcaaccttt 120  
gcacaaggag aagatgatcc ttggtttgct gcaactgggga aggaggggtgc attcacatta 180  
cttggaatga ccgaggagca atctcttttg aggggtctaga tctaaatgtt gtggagaatg 240  
tggaagaagc tgactttggt ttagcgcacg gcaactgaagc cctangactt cttcaggca 300  
ntgtatctcc aaggactatt gatgagctag agaagatttt ggagaaatct gcagctcnan 360  
gacttcccat gatcgtagct aatccaaatt acgttgactg ttgaaagcaa atgtttttca 420  
natcatgcc agtacactan cttccaaagt ntgaaaaact gggaaggaga aatgaatcca 480  
tnggaaaacc t 491

<210> 2978

<211> 500

<212> DNA

<213> Arabidopsis thaliana



<223> unsure at all n locations  
 <223> Clone ID: LIB22-017-Q1-E1-A7

<400> 2978

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tcttcagcct ggattcggat atcaacaaca gcttgtaccg ggtatgagac ctggtgggctc 180
tccaatgcc aacttcttca tgcctatgat nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnt cttccacaac cacaacaacc 300
ttctcctatg atgcagcagc agatgcatcc aagaggctga atgtatcggg atcctcagcg 360
agatgtaaac acaatgcctg gtctactca aaacatgctt tctgttccat atgacgtctc 420
aagtgggtgt ggtgtgcac atcgtgactc gcctacntct caaacctgtt cctattgtan 480
ctttggctac acggcttggc 500

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<210> 2979  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-H5

<400> 2979

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gtgttggttg taggccaaga catcatggtg tcatgggttg gatgaaccat aaggatgcat 180
atgttggtga tgaagcacia tccaagagag gtattcttac cttgaagtat cctattgagc 240
atggtgttgt tagcaactgg gatgatatgg aaaagatctg gcacacact ttctacaatg 300
agcttcgtat tgctcctgaa nagcaccctg ttcttcttac cgaggctcct cttaacccaa 360
aggccaacag agagaagatg actcanatca tgtttgagac ctttaactct cccgctatgt 420
atgtcgccat ccaagctgtt ctctccttgt acgccagtgg tcgtacaacc cggtta 475

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<210> 2980  
 <211> 417  
 <212> DNA

<213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-016-Q1-E1-H7  
 <400> 2980

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 ttccgtgatt taaatccttt ggggtttttt tttcttgatt tcagaagaag aagagaagaa 180  
 acaatccgta atctagaccc ttgaattgac ctaataatag gatacatatg atgactatga 240  
 agcagtcttt gagtggcagg gttcttaggg gggctcttgg tatctatctg taggagggct 300  
 tttaggtgct gtttcgggag attaaagcca gattcaaggt gagtctgaga gcttggttct 360  
 tgtatcttct tgtttaccaa tgggaatcta ggtcactgag aaaccatcct tcttggt 417

<210> 2981  
 <211> 470  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-H8  
 <400> 2981

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 aaaaaaactt gcacatcttc tcagatcttc aagtttctcc tctggtttct catcatgacc 120  
 gttgatatta tgcgtttacc taagatggaa gatcaaacgg ctatacaaga agctgcatca 180  
 caaggcttaa aaagcatgga aacttgatt cgtgtcctct ctaaccgtcc cgaagaacgt 240  
 aacgttgatt gctctgagat cactgatttc acagtttcta agttcaagaa agttatctct 300  
 cttcttaacc gttccgggtca cgcccgggtt agacgtggtc cggttcatc cctccttcc 360  
 tcctccgttc ctccaccggg tgaaagtgac aactccggct cccactcaga tntctgctcc 420  
 aagcaccggt tagcttcggt caagcaaate aacaaagcgt gacgttagat 470

<210> 2982  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations

<223> Clone ID: LIB22-016-Q1-E1-H9

<400> 2982

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ctccgttaat gttggctgcg atgtatggaa gaatctcttg tgtgaagaag ctagctgaag 120  
ttgnggctaa tattttgatg tttgattcng tgaatcgaan aacatgtttg cattacgctg 180  
cntantatgg acatgcnaa tgngttcaat ctattctctc tgctgcnaa tcaagtctcg 240  
ttgcngtcca ntggggatat gcgagatttg tgaacataa agatgataa ggagcgactc 300  
cgttgcattt agctggcncg acagagacga cctgaatgtg tgaatgtttt gttggatact 360  
ggttctcntg tttgtgcac aactatgtaa angggtctca aggaaac 407

<210> 2983

<211> 494

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-017-Q1-E1-A1

<400> 2983

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn ncagtcctcg atttccgctt 120  
tatccgatcg gccgccgccc agattctaga taaacctatg gcaatggagg ttacgcagtt 180  
gctcattaat gtcagtcga ttgatggaac tgtacgtaag cacgcggaag aaagtcttaa 240  
gcagtttcan gagcaaaacc ttgcgggttt cntgttgctg cttgctggag aacttgcnaa 300  
tgatgagaan ccagtagata gcaagaaatt aactgggtta atccctaaaa atgctccttg 360  
aagctaaagg aacaacacan gaaatatgaa cntgggtcaa aaatnggtn gctccaagac 420  
atgtcaaca aagtcncaa anttanannc ttttctggt ttgaanaaaa ctgtccnggg 480  
aacctgtggc cctg 494

<210> 2984

<211> 494

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-017-Q1-E1-A10

<400> 2984

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ataaaaaach aanaanaana agaanacaat acagttcaca acgccatggg gtttaggcat 120  
cttaagcttc tccgaaacaa ttcgaccaag cttcacgtct tcttcnatct caaacctcca 180  
atttttctct ccgcacaatc gtctcaaaac cagagctcca atctcctgaa tccgctgctg 240  
tctctgagcc tgagccgccg acacagattc tccctcctag aaaccctgta ggtggagcac 300  
gcgtccactt ctcgaatcct gaagatgcga tcgaggctct tgcgatggg tacgcgggta 360  
aagtccttaa angattcact gntcctcaag cttgttaagg tccctggaat tgataanccg 420  
aaggtttggt aacaatcctc gtttaaccna ntggctggaa atttgcaagg atgttgctct 480  
tgttgaaggt tgaa 494

<210> 2985

<211> 421

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-017-Q1-E1-A11

<400> 2985

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agcaagtttt tgacagtgga tatgagacca ttggcactca ctggtgttcg gtttgacaat 120  
gatatgggtg ccaccttctt cattgacgag gatgagaaag tcgctgtggg ttttcgatct 180  
agacgggatac ctaagcaccg agagcgctcg ttaccacacc gcttttatca gtggaaagga 240  
tggattcntt aaacctgtga ctctaggagt agctcccaat gtcngggaac cttgtcccag 300  
aaccgggcat attccgacta catatcgctc cccgccttgt cctgctcgtc tacttacctt 360  
ccgaagttaa ntgcaagtca accaacagcg caaaanggaa gaaagacatg tttanttttc 420  
c 421

<210> 2986

<211> 476

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-017-Q1-E1-A12

<400> 2986

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gttncaaana tgtaaataag tttcacacca tcaagagatt ttgacgggtt agtagggatg 120  
agagctcata tggatatgct ggaacaattg ttgcgcctag atttgatga agtaaggatg 180  
atcgggattt ggggaccgcc tgggattggt aagacaacta tcgccagatt tctgtttaat 240  
caagtctccg acagattcca acttagtgcc atcattgtga atatcagagg aatctatcca 300  
agaccttggt tcgatgagta cagtgcacaa ttgcaactac aaaaccaa atgtgtcccag 360  
atgatnaatc ataaagatat catgaattcc caattaagaa gtggctcaaa gaacngtttg 420  
agagacaaga aagtgtttcc tgggtcccat gaaattgatn aaattaagac aactaa 476

<210> 2987  
<211> 451  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-017-Q1-E1-A2

<400> 2987

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cttgctaggt ctacaggaca aaaggttttg aggctgcac tcggacttcac tgagtcaaca 180  
aggagcttga gtcagaaac caccacaactc aagaaagggtg attctcgaga cagaggaagc 240  
ggatggggtt catggcgtgg tgggtgtggtg gttacaagag ctgttgtccc aacaaagcat 300  
anccataagt ttgttaantt aancgttcaa anaactgatt tttgctgaaa caaactgttt 360  
gggaatgcaa naacaaaaac tccttttccc ctnaattttt tgggnaattt tcataaaant 420  
ttgcccttg tccttttggg gtcaaagtgt t 451

<210> 2988  
<211> 445  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-017-Q1-E1-A3

<400> 2988

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ttatctgacc catccaatct tcaacatgta ccacacggag catgagttgc ttaggtacat 180  
ccacaagtta caaaataaag atctatcatt gtgccacagc atgattccac ttggatcttg 240  
tacgatgaaa ttgaatgcca cactgaaat gatgccagtc acatggccaa gtttcaccaa 300  
catgcacctt ttgtctctg ttgaacaagc ccaaggttat caagaaatgt ttacgaattt 360  
gggtgagctc ctaagtacga tcaactggatt cgactccttc tcaatgcaac ctaaagccg 420  
gtgctgctgg gcnagtacgc ccggg 445

<210> 2989  
<211> 485  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-017-Q1-E1-A4

<400> 2989

gagaacaact tcttcagggt ctataaagag attccgaaga agaattcttt ccagaaacag 60  
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aacagggtga gtcagagggt gttattgtct ctgctgttgt tcctgaggag actactgtta 180  
aggctgttgt ggaagagact aagggtgaag aagatgagag caagcctgag ggtgtggaga 240  
agagtgtctt cttcaaagaa gagagtgatt tctttgtga ttttgaaaag aatcctgaga 300  
aaaaaggcac tggagttgat ctcaagtcct aaagctttga aggaanctat tggtttgaca 360  
acaactcttc cttannnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 420  
nnnnnnnnnn nnnnnnnngt tgttgaaaac cctgaaagcc tgaaggtttg agaaagaaag 480  
aaagg 485

<210> 2990  
<211> 479

<212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-017-Q1-E1-A5  
 <400> 2990

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 cggagatata tatcttcgac atcgggtgaag aatgggggtac cgtcgtttta ccgatgggtg 120  
 gccgagaagt atcctctttt agtggcggat gttatcgagg aagagcctgt tgaaatcgaa 180  
 ggcatacaaga ttctgtgga tactagtaaa cctaacccta acaacctcga atacgataat 240  
 .ctttatctcg acatgaacgg gattatccat ccttgctttc acccnaaga taggccatct 300  
 ccaactacct ttgaggaggt gtttcantgt atgtttgatt acattgatag gcttttcgtg 360  
 atggtacggc caaggaagtt actctatatg gctattgatg gtgttgcctc aagagctaaa 420  
 atgaatcaac aaaggtctaa acggttttaa tctgctaaag atgcatccgg tgcactgct 479

<210> 2991  
 <211> 447  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-H4

<400> 2991

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 acttcactct ttagctcaaa cctacaatt tcagctaaaa tagggcaaaa ccctcgcggc 120  
 gtcagatcgg tttatccgac ggtgagaatg cagtcacgtg ttcaccgtct gattgaagag 180  
 caaggtgctg tgcttattcc cggagtctac gacgcattat ctgcggctat tgtgcagcag 240  
 accggattct ccgccgcatt aatctccggt taagccctct ccgccgtaac tttgggaaaa 300  
 ccanatttcg gtttgataac acctccggga gatggcagca aacggcgaaa ttaatgttgt 360  
 gctgcgggtc caaaagantc caatcantgc aagatgcana tactgggtgg agggaaatgg 420  
 ctctcaaatg ttcaaaagaa ncgtcca 447

<210> 2992  
 <211> 450

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-E9  
  
 <400> 2992  
  
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 aaccgtgatc aagatgcaga tcttcgttaa gactctcacc ggaaagacta tcaccctcga 120  
 ggtggaaagc tctgacacca tcgacaacgt taaggccaan atccaggata aggaagggtat 180  
 tcctccggat cagcagaggc ttancttcgn cggaagcat ttggaggatg gccgcacntt 240  
 ggccgattan aatatccaag aacgantcna tcctccactt ggttctcaag gctccgtggt 300  
 gggatatcaa gattthttcgt taaaacccta acggggaaag acgantactc ntgaagggtg 360  
 anaagctctg acancattga caacgtcaag gccaanatcc aagataagga gggatttcct 420  
 ccgggaccag caganggttg atcttcgccg 450

<210> 2993  
 <211> 431  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-F11  
  
 <400> 2993  
  
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 cttaatacaa aattccttca agatctcaca tctcttataa gnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnc tgccggatct tcaaccttgt 180  
 ctgaagaaga cattttctag ggtttctaga gattggtcgg gttttcgggt caagtaaagt 240  
 gtggatcagc ctatcgtag ctccacttca ttangttatc aacgacaata ttcacatctc 300  
 aataatcatc atcaaaggtc ntgcttcgat cctgaatect ctngctggct gctgccttcg 360  
 aataantggc ccttcgacaa tcaaccaagt ggttattgaa aaagcaaagt ctgaagcggtg 420  
 attcggagtg c 431

<210> 2994  
 <211> 420



<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-F3  
  
 <400> 2994  
  
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 ggatgacaaa tatcaatata ctcactttgc tcacaagatt aatagcttcg aactgcccc 120  
 gaaaaagctg ttgccctctg attcacggtt acgacctgat anatacgcac ttgagatggg 180  
 cnacatgtcc aaatcaggct atnagaagag cancatggaa gagagacana gagctganaa 240  
 gagaacccgc gaacanaaag gccaaagcctt tactccaaaa tggttcgatg taacggaaga 300  
 agtcacngct acaccatggg gtgatctgga agtttaccan ttcagtggaa agtactocag 360  
 nacatcntgc anctgcggat aactctgaag atannaccga ccctaagtcc atncaaatca 420

<210> 2995  
 <211> 478  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-F7  
  
 <400> 2995  
  
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 ctctgtttca tcaaactctt catcagtgtc tcttattttc ttcaaagctt caaattttctt 120  
 tttttccttc ttgcaatggc aaaatcgaag aaaatttcta cagggtcaa atttggttgt 180  
 gagagtctcc ttgggtgcat tttccagagc tggagccctc gccgtcgaaa accctcttta 240  
 ccggaaaagg atcatcgggc aaaagataac ttgtcttcca agtcatcaac aaccgttaca 300  
 aaccctaaaa tcctcccaag aaaatccacc gatacttctt ctcaaccaa gaaatctgac 360  
 tcccagaaac cccaacaaaa gccaaaacca agatgagaat caccgcgaa aatcatcgga 420  
 atccgccaag aaaatcatct gantccggca agaaaaacga nttcgtcaag gctcatca 478

<210> 2996  
 <211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-016-Q1-E1-F8

<400> 2996

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gtagcctcaa atcgcatagg gaaggaaata attgaaactg agcatggacc tagtcagatc 120  
actttctacg gaacttcctt cattgccgga ccaacagggt aaattgtggc cgaggcagat 180  
gatnaatcgg aagctgttct tgtatcacag tttgatcttg atatgatcaa gtcgaatagg 240  
cacagctggg gattgttccg tgaccgtcgt ccatatttgt anaangtget tcntactatg 300  
tatggtaatc tnaactcnt ttgctgttgg aagctttgat cntttgttta agatcacact 360  
gnnggaaatc cattanncan caattantac tggcntaacc ttaaacggt 409

<210> 2997  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-016-Q1-E1-G10

<400> 2997

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agaattttct tacttttgtt ctagttttgt tgagaaaaag atgcatccga tcttcgatgc 120  
catccttcaa aatgaccttc cagcttttct tggtttgggtg gaagcgagag aatcttcctt 180  
ggaggagaga agcgaggaac agaacaccaa caacacggtt ttgcacgtag ctgcaaagct 240  
cggtcaccga gaactggtcg ccaagattat tgagctccga ctttccttc tctcttcccg 300  
taacgcgtac ggagacacac ctttgcattt tgctgctctt cttggagacg taaacatagt 360  
tatgcagatg ttagacactg gattggaact atattccgca cgcaataaca agaa 414

<210> 2998  
<211> 391  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-016-Q1-E1-G11

<400> 2998

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 tgaaacccta gcaatttcaa tttcgtttcc tctaatagaa tcttcatctt tttatggcgt 120  
 aacgttacac gaatttcaac gatttaggtt tttttttttt ttttttgaag aatcaaacac 180  
 aaagatagaa acaatgtcaa cggagactac cacgggaaat tcctcgtaa ttccagcatn 240  
 atcatcatcg tcctcctccg acgcaatcga tccaagctcc gttgcttttt aacggcgacg 300  
 ataatganag gaaacaacgg aggangaggt ggggaacgga gatntgtcag ggagacaagg 360  
 gntgagagaa gctgcgangg ttccttagtc g 391

<210> 2999  
 <211> 426  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-G2  
  
 <400> 2999

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 aacagagtac atggttgatg gttctctgag acatgttcta gtcaggaaag atagacacct 180  
 ggatcgctgt aagagactaa tcattgccat ggatgctgcc tttggaatgg aatacttgca 240  
 cgccaaaaac attgttcact tcgatttgaa atgtgacaat ttacttgta acctcaaaga 300  
 tccttctcgc ccaatctgca aggttggtga tttcggtttg tcgaaaatca aaagaaatac 360  
 attggtatct ggtggtgtac gcggaacctt aacaagggat ggcaacaaag cntctcaatg 420  
 gtaaca 426

<210> 3000  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-G5  
  
 <400> 3000

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ttcgcctttga ggaccttttt ttgtagattt agaagctcag tgctcgtttt gattttaatct 120  
 agatccagaa agctgaagtc tttgatctac gaaacgaaat ggttgctaac ttcaatccat 180  
 cagtgggggtc atttgtgtgg gtggaggatc ctgatgaagc atggattgat ggtgaagttg 240  
 tacaagttaa tggatgatgag atcaaagttc tatgcacttc aggaaaacat gttgttacga 300  
 aaatctctaa tgcttatcct aaagatgtgg aagcaccagc ctctgggagt ggatgatatg 360  
 actagacttg cttanttgca tgaacctgga agttcacaga atttgcnatc aagatatga 419

<210> 3001  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-G6

<400> 3001  
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 aaaaaggaat actcaagaaa ccattacaa agagggtctt taaagcatct ggccagtcgg 180  
 atttctctgg gaatgcttcc aaagacctgc tactaatgca taaacttggg gagaccattc 240  
 atccaatgac ggaggatttt atcatggttc acttgcagca tagttgcaca cattgctgta 300  
 cgctgatggt aactggaaat cgttgggttt gcagccaatg caaangattt ccagttatgt 360  
 gatggatggt atgaggctga gcagaaacga naagacagag aaagacatct gttaatcaag 420  
 aanagata 428

<210> 3002  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-G9

<400> 3002  
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ctcagatggg cgacgtcaca tctgggccac tgcttctgac ctatacgctt gatgatgggc 180  
 ttactttctga agatgttggg ccttcacatg aagaacatna aacatcatcg ccttcnata 240  
 gtgccgttgt tccctctgan naaacgcaac tttcttctca gtcncctcct tcagtagana 300  
 actcgacana acttcantga tactgatgat ttaatgngtc ngcatgatga tacacctgat 360  
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<210> 3003  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-H1  
 <400> 3003

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 ctgagatcac caatgccgtt tttgagccag ctagcatgat ggcaaagtgt gacccgagac 180  
 acggaaagta catggcctgt tgtttgatgt accgaggaga tgttgttccc aaagatgtta 240  
 atgctgctgt tggcaccatc aagacaaaaga ggactgttca gtttgttgac tgggtgccaa 300  
 ctgggttcaa atgtggaatc aactaccaac ctccancaag ttgttccaag ntggtganct 360  
 cgctnangtt cagagagctg tatgtatgat cangtaacaa cncancagtt gcagangtgt 420  
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<210> 3004  
 <211> 470  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-H10  
 <400> 3004

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 gagtcatagg aaatgtaatc tccgtactag ttttctctc accagtggag acgttttgga 180

aaatagtgaa gcggagatca acggaggagt acaaaagctt gccgtacatt tgcacgttgt 240  
 taggatcatc gctatggaca tattacggca tcgtcactcc cggagaatat cttgtctcca 300  
 ccgttaatgg ctttgggtgt cttgttgaaa ccatctacgt ttcacttttt ctcttttatg 360  
 cccctcgaca tctcaagctg aaaacagtgg taatggtagc gatggtgaac gtgttttttc 420  
 caatcgcggc gattgtggca acgaagaagt gcgtttgaag atgagaagat 470

<210> 3005  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-H2  
 <400> 3005

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 aagggtttgc aagatgtact caagtcgaat ctcggctcta aaggaacaat caaatgctt 180  
 gttggtggtt ctggggatat taagcttacc aaagatggga acacgctatt gaaggaaatg 240  
 caaatcaga atccaacagc cattatgatt gcgaggacag ctgttgacac ggatgatata 300  
 agtggatgat gtactacttc cactgttata ttcattggtg agcttatgaa acagtctgaa 360  
 agcctgcata natgaaggta tgcacccacg agtcctaatt tgaatgggtt cnaagaattg 420  
 ctaaagaaga 430

<210> 3006  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-E5  
 <400> 3006

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 ggttgatcgg atagctggtt cagcaccagg aaacggttca agagcttccg ttggtgaaga 120  
 cttggttgca atgactaagt gccgtctcca agcaagaaac ttcattgacc aagagggaaat 180

gatggcgact aagaaaatga agcgtcacac aaccgcaatg ccactaagcg ttgcttcact 240  
 gggaggaagt gttggtgata actacaagca gtttgctggt tcagaaacat cccatctana 300  
 atctactgcg acttcggatg gcaagaaggc aagaactgag accgagcatg cccttttggg 360  
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 gaaga 425

<210> 3007  
 <211> 480  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-F3

<400> 3007

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 cgctgggggtt tgggtccgatg accctgcctt gcagcttgag tccactactc agttcaggaa 180  
 gcttctctct attgagagaa gtccctccaat cgaggaagtg ataagtgctg gtgttggttc 240  
 taggtttggt gagtttctta agaaagaaga ttaccccgcc attcagtttg aggcagcttg 300  
 ggctctaaca aacattgcat ctggaacatc ggatcacact aagggttgtaa tcgatcacia 360  
 tgctgggtcca aacctttggt aacctncttg cttccccnac caataanntn cntnaaaagg 420  
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<210> 3008  
 <211> 464  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-014-Q1-E1-F4

<400> 3008

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agtctgaatc ggacgcgccg ccgaaacagg tggctcaggc catggaacga ctcaatcaag 240  
 cggctagggg tatcgccgat atccgcctcg gcgctgaccg tatccttgaa gctatgttcg 300  
 tggcttcgca acctcgtcac acagacatgc ctcttcaac tcttctcaag aagaaaacgc 360  
 ctccatgcgt caacatcctc aagggattct tccgccttaa taagggaaag aaaattggga 420  
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<210> 3009  
 <211> 488  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-F5  
  
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 aattctctta caggaaccga acatggagtc atcatcgtcg acttttctca ccacgacaag 120  
 cttagacaag aaaaaacat ctccggtttc aagaaaatca ccaaagcaaa agaagaagac 180  
 gacttcgacg aataaaccca tcaaagtctg ttacatctca aaccccatga gagttcaaac 240  
 ttgtgcttct aagttcagag agctcgttca agaactcaca ggccaagacg ccgtcgatct 300  
 tcaaccggag cccatctatt ccccttcctc cgacgaccac aacctttctc caccggcgga 360  
 gaatcttgcg ccacgtgttc ttcatcagga gccgttcggg gagagagaca gtgattgtta 420  
 tgagccgttg aatgcggaag acatgttttt acctgatcag atgtcggaag gtttttcngg 480  
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<210> 3010  
 <211> 483  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 3010

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 atggagggtg gattcaaggc attgctcgat gatcttgacg ttctcgagaa atctctctca 120



gatccggctc tgatcaacaa ggtctgcgat cacatgttga gaatctagcc actctgtcta 180  
 aatgtaatcc tcaccggcgt tccaaagtca aggaactaag ctcggaagtg gtagatagta 240  
 atccttacag taggcttatg gcacttcagc ggatgggcat tgtggacaac tatgagagaa 300  
 ttagagagtt ttccgtcgcc attgttggga attggtggtg ttggaagtgt tgcggctgag 360  
 atgcttacca gatgtggtat tggctgtctt ttgttgtatg actatgacac tgtcgaacta 420  
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 gcc 483

<210> 3011  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 gaacaatgag atgctccacg gatcgttcta tcgagatcga ctagactctg atgcaagagc 180  
 aaacatgttc aagactgcac acgagttaga cccattagca actctgtttc tgaatgaata 240  
 ccacatagaa gacggatttg actcgaggtc atcacccgan aagtacataa aactcgtaca 300  
 caagctgcaa aaaaagggtg caccctggg aggaatcggg attcaaggac atataaccag 360  
 cccgctcggg cacatcgctt gttctgctt agacaagcta agcacactcg gattaccgat 420  
 ctggttcaca gaacttgatg tgtctcgact aacgaaacat ataagaaggg gatgatctaa 480  
 aggtgatgct atgggaacct t 501

<210> 3012  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-014-Q1-E1-F8  
 <400> 3012

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accgccgccc cctcctcctc gatcgccgtt gccaccaact ctctcaggaa cgtgactctg 120  
tcttccagat cgcccttcc atcagccatc tccgtggctt tcccttccc tggaacgaat 180  
actcttcagc gacgcctcgt tctcgtttcc tgcagtactg gagacggatc taagcctacg 240  
attctcgtgg cggagaagct cggtgacgct ggtattaagc ttttggagga tgtcgcgaat 300  
gtcgactgtt cgtataacat gactcctgag gagctcaaca ttaagatctc gctctgtgac 360  
gccttgatcg tgaggagtgg gactaagggt ggccgtgagg tggtcgaatc gtctcacgga 420  
cggtaaggt tggtggccc ct 442

<210> 3013  
<211> 478  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-014-Q1-E1-G11  
<400> 3013

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ccatttagac nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnncac 120  
gtagagcaca aacaagccaa gaaccatctc tgctctttct ttcaccttca gcaaccaaag 180  
atgatgaaca gctgtggaat ccaacaaaac gcttttgaag agatgaggag aaacgccgcc 240  
gtttctgac ggagagacgc cgtgatttgt cctaaacctc gtcgtgttgg tgctcttaat 300  
caccactctt ctgatctct ccgttggaac ctcaagtaag atactttttg taataaagtt 360  
caaaactttt ttgaggcaaa tcaacttgaa gcaatcagat ttaatggntt ttgaatttgg 420  
tagcatcaag atggaataa tgtgaaaccg aatcaagga agttgagatt tggggatt 478

<210> 3014  
<211> 487  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-014-Q1-E1-G2  
<400> 3014

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ttgaaaggtg aaactggaga tagcaaaccg gttcgagaag ctgaaagaat gtatggaaaa 120  
 caaatccata aactgctgc tacctcatca agctctgcc ctcacactga taattttctca 180  
 aggtgtaggg acacacccgt tgctgcgact aatgcaatga gcatgatcga atcattcaat 240  
 gcagctcctc gtaacatgat tccttcaggt atgtgtgtct aatatcaaca tcaaaacaaa 300  
 atataatcaa gatttttgct tcctcaaate atatgtctaa actcgaaaat tgcttttttc 360  
 cagtcctca agctcggaaa gcatecttgg ctccgttcct tgggagaaag cgcaaagaaa 420  
 aggttggtt tggtaatatt tttccttaaa agaaaaattt tganggtttt cnattgaatc 480  
 caaaaag 487

<210> 3015  
 <211> 498  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-G3  
 <400> 3015

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 ctgatatag taagtttgaa actcggggtg tgctgaggac cagtgagttg aacaacactt 120  
 caaatgtgat ttgttctctg ggttttgatc gggacgagga ttattttgcc acagctggtg 180  
 tgtcgaaaaa aattaagata tatgagttca attccctttt caacgaatct gttgacattc 240  
 attatccagc catagaaatg ccaaatagat caaagcttag cggcgtttgc tggaacaact 300  
 acattaggaa ctacctagct tcctctgatt atgatggtat tgtcaagtta tgggatgtga 360  
 caacaggaca ggccatttca catttcatag agcatgagaa gagggcttgg tctgttgact 420  
 tctctgaagc ttgtccgaca aaattagcca gtggaagcga tgattgttct gtgaagctat 480  
 ggaacatcaa tgagaaga 498

<210> 3016  
 <211> 471  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-G4

<400> 3016

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atgggattgg gaagaggaag atggtatcat caagatttta ccaaaactca cctaagcttt 120  
cttcaaaagc ttcacgtaac tattccatca ccgttcaaaa tcgtccctgt ttcattctcg 180  
atctcatgtt cagcacctgc tctttgctct gcttacgagc tttaccttcg tctccctgag 240  
ctaagaaagc tctgggtcat ctcgtgattt tcttcaatgg acatcaagag ccgattctca 300  
aaccaagctc ttcaagcttt gggagatcag tttcaagatt agttttcgcc gtttggttctg 360  
atactagacc gtacatcaac caacggtgaa tggaaccgga ggctaaattc tctcatcacg 420  
aagcanattc aaccttgtaa caacgatttg caagatgaag aaagaagaaa g 471

<210> 3017

<211> 439

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-014-Q1-E1-G6

<400> 3017

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ggaaagagca ttttgttatc aagactctga agagctcttt tgggaggata gtaagggttg 120  
atgatgagag ggagatctga tggaggccta aagaagcggc ttattgcttc ggtctgtgtc 180  
gtggctctat tcgtctgttt cttgtttatg tactatgggt cctctancca aggtgcatca 240  
gcattggaat atggaagatc tttgagaaaa ctgggatcgt cttatttgag tggagatgat 300  
gataatggtg ataccanaca ggatgantct gtggctaattg cagaaanaat cttgttgtcc 360  
caaaagtctc cctgtttgtg atgaccggga anccggnaac atcccttgct tanataagga 420  
atttaactac aaattnagg 439

<210> 3018

<211> 476

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-014-Q1-E1-G8

<400> 3018

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gagtttcacg tctcaagatt tgatcacttc tgccaatttt ccagattgat ctctctaatt 120  
atggcttcca tgagtttcgc cttgaatcgc ttctctggac tctcctctaa aaccacctta 180  
tcagctgact tcgatccatc ctctcgccgg agttttctac cgccgactag agttggactt 240  
aagatctctt ccgccgccga atcggagcct gatctcagtg tcaactgtaaa tggcctgaaa 300  
atgcccaatc ctttcgtgat cgggtcgggt ccaccgggta ccaactacac cgatcatgaag 360  
agagcctttg atgaagggtg gggggccgtc atcgccaaaa ccgtatcttt agatgcatcc 420  
aaagttatca acgtgacacc tagatatgct cggctacgaa ccggattcaa tggntc 476

<210> 3019

<211> 482

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-014-Q1-E1-G9

<400> 3019

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gcccacgcgt ccggtttttg ggttttgggt ataaagcttg ttactttgat ctttattttg 120  
tgaattcgaa gtggaaatgg aatcgttacc atctccattt ggcgatccag ctctaattt 180  
atccaattcg gagctccgag aaactgctta cgagatctta gtcgctgctt gccgtagcac 240  
tggaagtcgt ccgctgactt acatccctca atcgccgaaa tctgatcgga gcaacggtct 300  
gacgacggcg tcgttatctc cgtctccgtc gttcataga tctctgactt ctacagctgc 360  
gagtaagggtg aanaaggcgt tagggatgaa gaaacgaatc cggagacgga gacngaggaa 420  
cgggagaatc gtccaatcaa ccggatncgg acaagaaatc cgtcacggtg gttaattggt 480  
nc 482

<210> 3020

<211> 435

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-014-Q1-E1-F12

<400> 3020

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gattgaagat aacgatcagc tcctaaacca atcaacttcg tcctcgccgc ataacttcca 120  
cctgataaaa tcgccgtcac aaccatcacc ggaagctctt tattattcat cctctcattc 180  
ctcggatcca acatttgcac caatcgaatc acactcttct catctctcat caactccttc 240  
cgatttgatc taacggtcaa caacgacttc gccgcctccg tcgccgcttc ttgtaacccc 300  
gccggtttcg gcgattccat taaccgaatc aacgagctta aacaatcagc gacggctcgt 360  
ttgttaccgt cgctgatgnt aaattcgata aaagagaagt tgagatntgt tgaaggatta 420  
cgtttccgtg ttttaa 435

<210> 3021  
<211> 442  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-014-Q1-E1-D8

<400> 3021

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attgaagaca tgcattcaaa atctgacagt ggtgggaaca aggttgattc agaggttcat 180  
ggtacagtat cgtcgtcgat aaatagttta aacccttggc atcgtgctgc tgctgcttgc 240  
aatgcaaatt ctagtgtgga agctggagat aaatcttcta agtcaatagc attagcattg 300  
gaatcaaacg gttccaaatc accatccaat agagataata ctgttaacaa ggaatcacao 360  
gtcacaacgt ctccacaatc agctggagat tatagtata aaaaccaaga tctctgcattc 420  
atggatcaca caacctcctc tc 442

<210> 3022  
<211> 496  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-014-Q1-E1-D9

<400> 3022

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ttcccaacgc aatcttcttc acccaatctc taaatctctc ctaaattcca tgtctctcgc 120  
ttccattcgc cgtttagctg cgggagctgc cgtaattgcc gctgcatccg gtggcgctgt 180  
ctacctgtct ccgtcggttg cctccagcga caaaggaggt ggtecgattc tagattcggt 240  
gaggcgtaag cttggtgatc ccaccgcttc tgtaccgtct cgatctgctc aagagtctgc 300  
tctgattgca gccaccgctt ctgattcgct cgatgttctc gtcattggcg gtggaaccaa 360  
cggttctgga gttgctcctt gacgctgtta aacgttggcc tccgttggtt ggtttgggtg 420  
aancgcnaag gattttctcc tcctgggaan tttcttccgc aatttacaaa agctggaatt 480  
caanggaagg gggttc 496

<210> 3023

<211> 468

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-014-Q1-E1-E1

<400> 3023

ctgnacgcca cggccacat aaccgggtn gcccacgcg tccgcaaatt cttctctgaa 60  
ctccaaacat cgccatgtcc gagattctct cttcgttgag gtcactaatg gcctctcact 120  
ctcctcctct tgatgctttg gttgttctt ccgaagacta tcaccagagc gagtatgttt 180  
ctgcacgaga caaacgccgt gagttcgtgt ctggattcag tggaagtgca ggtttggcac 240  
ttatcacgaa gaaggaagca agactttgga cagatggctg atacttcttg caagcattgc 300  
aacagcttag cgatgagtgg aactaatgc ggatgggaaa aaattctctt tgttgaaatt 360  
tggnctgctt gataatccaa ctgaaagang gaaatataag gtgttgattc aaggggtgtn 420  
ccngtnaaaa atgggaatan atgggggaaa tcntttggca agaagaat 468

<210> 3024

<211> 485

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-014-Q1-E1-E10

<400> 3024

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ttcctttcga cgaaagcctc cctggtttca ttaaaggcta tcgccgtgtc ttccatcaag 180  
gtagtactga tcatagagga actccggatt ttccgggaag aacagtgaca ttagaagctg 240  
ctcatgaaga agtttgttgt ggagttgctt acaagataac taaagaggaa gataaaagag 300  
atgctttatt gcatttggaa gtgagggaga agcaatatga tcagaaagag tatcttgatt 360  
tcttcactga ctctaagtct tcggaaccgg ctgtggcagg agtaatggtg tacatagctt 420  
cacctgacaa gaagagcaac aacaactact taggaccagc tcctcttgaa gatattgcc 480  
aacag 485

<210> 3025  
<211> 492  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-014-Q1-E1-E11

<400> 3025

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tgctccgatt cgtatatctt ctgtttcgtn cgagtgttgt aagangtttg ttttgccctga 180  
gactatacgt ttgtcatgga tatagatctt cgactacatt caggtgacct ttgcaaagga 240  
gatgatgagg atagaggact tgataatgtg ttacacaatg aagaagatat ggatattggc 300  
aaaattgagg atgtttctgt tgagggttaa tactgatgac agtgtangca ttgggtgtcc 360  
aactggggaa gttgggntga attacacctg aggggtaatg aatccttgga accctcctta 420  
atnggtaatg ganttttgan ttacaacggt ggaaagcgtt attcngtttt aaccaagnag 480  
gtaatccccg aa 492



<210> 3026  
 <211> 450  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 3026  
  
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 acttcccgtc tctttacgcc ggagatcatc aactctcggt aaagcctctt ccaccgtcgc 240  
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 tgccattaag cctcttctcg cttcgatcgc tactggtttg attctatggt tcgttccagt 360  
 cccgaaggt gtcactcgca acgctggca attactcgcg atcttctcgc ccaacatcgt 420  
 cgggatnadc actcagccgc tctctcggtg 450

<210> 3027  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-E3  
  
 <400> 3027  
  
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 cagaagttat cgatgcgctt cttatatag acgacgacta tggcaatcca ttgattaagt 180  
 cggaggtaga ccgtttggtg gaggaagaga tgcgtcggag ctctaagaag ccagctgact 240  
 ttctaaagga cttgcctcct cttccgaagt tcgattttta gaactgccct gttcttggca 300  
 aaagaagtat gagccgtggt tagaactggg aaanccctg ttccgggtaa gattccaatc 360  
 cccgatacaa aacttngaaa tngncaactt gccaaattaa gaaggaatga atgaa 415

<210> 3028  
 <211> 522

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-E4  
  
 <400> 3028  
  
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 aatctaattc ttgaagataa cggttggtgtt ctgcgtggag ccgctaaacg cgccgctact 120  
 tctgcttggc atctgcgcca caacagcggt cgtaagcatg tggatgcata acgtagcagc 180  
 tgcagtcag atgatgcctg tgcgtacggg gatacttcag agactgccct cgatcatcatc 240  
 gacgacggaa gtggtgcac cggccgtggg gaagtttagc agggcggtgg tgttaggtgt 300  
 gatatactct gcggcggttg gtgggatgag cactcact gggaacagga gtgaaatcct 360  
 gaatccttgt tggaaatgtt ggaaaaagct actttccctg aanggetgat tccgattaag 420  
 ttttnagcca aatgggttcc ttccttttgg cttcccaatt gggcntttgt gcaataattc 480  
 cttggtggct ttgggtgttg ttccttttgg gttaaagtaa tt 522

<210> 3029  
 <211> 440  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-E6  
  
 <400> 3029  
  
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 tcnagttttc tgggtgtgctg ccgatcantt ttcanttacc aactggctta tttgtgcttt 120  
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 ccttctttcc cgaggaagct ctaaggcttt ttcgggtgat caagacggac gganggagga 240  
 ttanacgtn nataagattt aacaggaatt tgcggaattt tgattatatt agtgagtaga 300  
 agaaatgagc gcagtctcgg gtgtaatctc nangcaagtt ttgcctgttg gtggtaacct 360  
 ttgaattctt tgctgcgct tcgtgcaagg tcaagacanc ctgtgaagaa ggtacaagaa 420  
 cctaattcct gaaatttttc 440

<210> 3030  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-E9

<400> 3030  
  
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 tgtagagctc aggagagttc gtcgtgagta caaggccaaa aaggtctcag aggaggacta 180  
 cgttaaagcc atcaaggaan agatcaagaa agttgttgac ctccaagagg aacttgacat 240  
 cgatgttctt gtccacggag agccagagag aaacgacatg gttgagtact ttggtgagca 300  
 nttgtctggt tttgccttca ctgcaaacgg atgggggtcca atcttaagga tctccctgt 360  
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<210> 3031  
 <211> 488  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-F10

<400> 3031  
  
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 tgggattgca ctaagccaga tggcacaccg aggaaactta tggacagctc aaagctcgcg 240  
 tctttggggt ggacacctaa ggtttctctt agagatggtc tgagccaaac ttatgattgg 300  
 tatttgaaga atgtttgcaa ccgataagtt aatggtttct cttctcatat atacacaact 360  
 attgagtctc angtaaata gcttatcacc acattgtgat ttaaaccctt ctttgagatt 420  
 ccaagaattg cttttttttt taacaaaatt gattcattta gagataagac ttgcttcttt 480  
 aaacaaca 488

<210> 3032  
 <211> 470  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-F11

<400> 3032  
  
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 tattcgccgc aagaaagatg tctccggcga agaagagccg aagttttcct ccgataagcg 120  
 agtgtaaaag cagagagtat gattcgatcg ctgcggatct cgacgggact ctgcttctgt 180  
 caagaagctc tttcccttac ttcattgctgg tggccattga agcaggtagt ctcttccgtg 240  
 gattgaccc tcttctttct cttcccatcg tcatcatcgc ttatctcttc gtctccgaat 300  
 ctctcggaat ccaaatacct atcttcatct ccttcgccgg tatcaagatc aagaacatcg 360  
 aactcgtctc tcgcgccgtt cttacacggt ttacgcggc ggatgtgagg aaagataatt 420  
 ttgangtggt tgataaatgt aagaaganga aagtatggtg actgcgaatc 470

<210> 3033  
 <211> 489  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-D4

<400> 3033  
  
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 ctatatcgac gccgtctaatt tctatcatt tctcgttgct ccaaaccct aactttacta 120  
 ccgtcgggtca ttattttcac tttctcggct cgatttggtg ttggagggtg gtaatcagtt 180  
 atgggcgctc cgaaaaagtc tcaatctaatt accaattcga tgcagagagt gaaagtctat 240  
 catttgaatg aagatggtaa atgggatgat cgaggaactg ggcacgtaag catcgacttt 300  
 gtggagcgat ctgaagaact cagtctatgt gtaattgatg aagaagataa cgagacgtta 360  
 cttgttcatc ccatcaaccc tgaggatatt tacaggaaac aagaagacac aataatctca 420  
 tggagagacc canaacggct caacagaatt ggctttaagc ttcaagagac tgcagggtgg 480

cnctaagtt

489

<210> 3034  
<211> 488  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-014-Q1-E1-B4  
  
<400> 3034

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tcgacgtttc acggcgaagc ttcagatcta cttttcccca gctcagtatg gagacggttg 120  
attctcggaa caaattgcat tcccggttac gtttatggga attccccgat cagtacatca 180  
tcgagccagc tgatgggtca ggctcttcat gtttgatat tagtcgtgtt gatgcttcca 240  
tgaagctcat cgatcaagtc ccagaaagca attccgtgcg tgtccctaaa atccgttcca 300  
tttttggtgt ggttgggatg ttgaagctcc ttgcaggatc atacttggtg gttgtaactg 360  
agagtgaacg tgttggatcg tttctggggc atcctatatt caaagttaca acgcttaang 420  
gtcctccctg tgatnaatca cttaaaaact cgcctgaaga acagaaaaag atggngaacg 480  
agtttccc 488

<210> 3035  
<211> 510  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-014-Q1-E1-B5  
  
<400> 3035

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tttcagttac acagctgaac ccaaagtatc tcacattctg atctaatacag aacactgttt 120  
tgtctgtgta acataaacia acgatcctgt ttttatggaa aatttaataa aacagtgcac 180  
attcttctac acttctttat aatgacaaac atttcatagt accaaaatac acaaatacct 240  
tttctttatt cttctcacc ttctctgttt ctttatcatt catgggtcca aattcagtan 300  
cagtgacaat ggagaagcca gacaacttct ctttactaga gatcaacggn tcaagattca 360

tcctcattcc ccgacaaaacg taaatccatc aagtccaaaa caattctcat ggntccttcn 420  
tctcaaaagc tcatanactc atcccgtgtc tctcgtggct antcccntcg gttaaaaagc 480  
gaatcncggt ctccgcgaaa gaacattaac 510

<210> 3036  
<211> 428  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-014-Q1-E1-B6  
<400> 3036

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aaacccaaat gtctcgtctc ccgattttta tcgcttcgtg tctcttcctc tcttactca 120  
ccgccgccgt cgtcaccgcc gccgaatccg atactccgac ggcttattca ctctccaaa 180  
gctacaactt ccccgctcga atccttccaa aaggagtcgt agcttatgat ttagacacaa 240  
taacaggcaa attccatgcg tatttcaacg attcatgtag cttcaatctt gttggttctt 300  
accaattgaa ttacaaatca acaatcagt gttacatctc cgagaacaag ctcaagaaat 360  
tgactgggtg taaagtcaaa gtttgttctt gtggcttaac atcgtcgagg tattaagaac 420  
gggtgacn 428

<210> 3037  
<211> 492  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-014-Q1-E1-C1  
<400> 3037

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aaagggagct gaggtcgtca ggatgtacaa aactctacta ggaactcagg ggttccgaaa 120  
gggaattgat ctctattttg aaagacatga tgagcaagca gtgacttggt aagacttctt 180  
tgctgctatg cgtgatgcaa ataatgcaga ctttgcta at ttcttgcaat ggtactctca 240  
agctggaacg cccgttgtca aagtggatat ctcttacaat gctgacgctc gtactttctc 300

tttaaaattc agtcaggaga tanctccaaa ctccaaggcc aagccaacaa aaagaacctt 360  
catttaattcc aatgggttgg tggncctttg gacccaaatn ggaaaaacaa tantccttnc 420  
tccggtcaac aagaanggac aatncaaacc aattnaagga acaacacaat actccagttg 480  
ccaagaaaga aa 492

<210> 3038  
<211> 479  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-014-Q1-E1-C11  
<400> 3038

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tctctccatg agaactctaa tctctcaccg gcaatgtgtg acgtcaccgt ttcttatctc 120  
cgccgcatct ccaccgtttc ctggccggtg cttaaagtta tctctcttta ctctccacg 180  
tcataggcgt ttttcttctc tctcgatcag aaacatttcg catgaatccg ccgatcagac 240  
ttcttcttct aggcgcgcaa ctctttatcc tgggtggttac aagcgtcccg aactcgccgt 300  
tcccggttta cttctccggc tagacgccga cgaggttatg agcgggaatc gtgaagagac 360  
tcttgatttg gtcgaccgtg ctttagctaa atcggttcaa atcgtcgtga ttgatggcgg 420  
agccaacgct ggtaagctct aagaagcggc ttgtttgctg aaatcacttg tcaaanggc 479

<210> 3039  
<211> 433  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-014-Q1-E1-C12  
<400> 3039

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ggggtttact gcaattgcac ggtggtaatg gctgcggttc cgcctnnnnn nnnnnnnnnn 120  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnng ccacgtctca aatatcagag gatgggtggc 240

aacgttcctg cgttgctatc taacgatgct gcttcctgca tcgctgttgc tgcgangatg 300  
 atcgcgcttg gtacgcacga cggtagcgtg cgtatcctcg atttattggg gaatcangtt 360  
 aaagaatttc gtgcccacac tgctccggtt aatgacatca actttgacac tgaaggagag 420  
 tatatccgaa act 433

<210> 3040  
 <211> 504  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-C2  
 <400> 3040

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 gttctgacct gagcacacac acagagattt tgattgtgtc actcatggaa cccaatattt 120  
 accaacttgc cctcgcgggt ctattcggag cttccttcgt tgctgtttct gggtttttca 180  
 tgcatttcaa ggcactgaat ctagtccttg agcgtggtaa ggagcgtaaa gagaaccctg 240  
 atggagacga gcctcaaaat ccgaccttgg tgaggcggcg gagccaagtt agaaggaagg 300  
 ttaatgacca atatggtcgc agtcctgctt ctcttccaga tgccactcct tttaccgatg 360  
 gtggcggcgg cggcggcggg gatacangac gggacaacgg tcacgtttat gttgatgaaa 420  
 ttcctcctgg tctccctaag gcttcaataa cgccatcctg aaagggaata gcttccggtg 480  
 caatggaagc taagtaanta tcaa 504

<210> 3041  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-C5  
 <400> 3041

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 tgaaaacaca aaccaaagtg atgggaggac atgtcttgct tactgttttc actctttgta 120  
 tgctttgttc aggggttagg gcacagctaa gccctgacat ttatgctaaa tcgtgccccca 180



atctagttca aattgtccgt aaacaagttg ccatcgccct gaaggccgag atacggatgg 240  
ctgcttctct cattcgtctt catttccacg actgctttgt taatgggtgt gatgcgtcgt 300  
tattgttga tgggagctga cagcganaaa ctccgcgatt ccaaacaata aactcctngc 360  
aaaaggatth gaattatttg atacatccaa anccgctgtg gaaaacnaan ttctctgtgg 420  
ggttcctngt gctggaaanc tnnacttttg cggcccttaa ccctttt 467

<210> 3042  
<211> 444  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-014-Q1-E1-C6

<400> 3042

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tgttcctttc aagcatgttt acgagcaaaa gagtgaaagg gtagcttgat ttttgtctac 120  
tctagcttca ttttctggcg atctttactt gagatttaaa cattttgctc tcggattgat 180  
aataaagaag aatttgaat atcagtaggt ttggttagga ctctcggatt ctgttgtcgg 240  
ttagatattt gttttgttta atccctagat ttagcagaga aatccctcaa atctcacaca 300  
atccatgtaa ggaagaagat gacctccagt atcaaatcaa gtctgctaaa tctagggctc 360  
cttattatat ttttctgtctt cttcttcttg gtgattaact gtcnagggga atcttctacg 420  
tgtttggcgg tttacaaaca aggc 444

<210> 3043  
<211> 450  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-014-Q1-E1-C8

<400> 3043

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ctgttgaaa ttagatctcg tcttgatcat aaattcaaag aagctaataca aaaaggacct 120  
ctttgggatg aagtttctag gattatgtcc gaggaacatg gataccaaag gagtgggaag 180

aaatgcagag agaagtttga gaatctgtac aaatactata ggaagactaa agaaggcaaa 240  
 gccggaagac aagacggaaa acattacaga tttttccggc agctcgaagc gctatacggg 300  
 gattctaata acttggtttc ttgtcccaat cataacacgc agttcatgag cagtgtctct 360  
 catggtttcc atactcaaaa ccctatgaac gttactacaa caacgtccaa catccataac 420  
 gttgatagtg ttcatggttt catcaaagcc 450

<210> 3044  
 <211> 465  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-D1

<400> 3044  
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 atcttcttct tccatcgcca ttgccatggc taagctctcn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn catgtgcaga gatctcataa gccttccctc ttctcctccc acaacaactg 300  
 gcacgtctct ctcttctgct ctctcccttc ctccccccaa ccaagcaacg gtggtccaat 360  
 cctaataaac gcgccgttca atgggttntc cgntcgtctc tncctaanc aaaccgncgn 420  
 cctccgncgt nanccttcan tnanctccgt tatacctgat naagc 465

<210> 3045  
 <211> 481  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-D10

<400> 3045  
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 ccgctttcct cttccatcag ctgagaacaa tgataggctt acacttcagc tcaaggacat 180

ttccttggag ttttcatggt ccttagccag aatcaaagaa gcgattcctt atgattcaag 240  
 cactctctgc cgttctacgc cggcttcatg ttcagaggag acccttaaat caattgcagt 300  
 tttggttgaa gagcaaaatc ttccaaagga aaagatgtgg ctctcctctg ggatctccac 360  
 gtttctctgg ttatacacca gaattatagg gttcaatccg gctacaagta gtcattaact 420  
 ctgagcttcc atacgggtct ggctcgggtt catcagcagc ttaagtgtac tctcacaagc 480  
 t 481

<210> 3046  
 <211> 494  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-D11  
 <400> 3046

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 ggaatacaag aacattagtt tcaccgtgtg ggatgtcggg ggtcaggaca agattcgtcc 120  
 cttgtggaga cactacttcc agancactca aggtctaate tttgttggtg atagcaatga 180  
 cagagacaga gttgttgagg ctcgagatga actccacagg atgctgaatg aggacnagct 240  
 gcgtgatgct gtgttgcttg tgtttgcca caagcaagat nttccaaatg ctatgaacgc 300  
 ctgctgaaat cacaagataa gcttgggctt cantccctcc gtnaagcgtc attgggtata 360  
 tccaaaagca catgtngcac ttnaagggtga aagggccttn atgaaaggcc tngactggnt 420  
 ctncanaaac atccctggca aagccttatg aaggaaaaaa ttgcctttcc tccaaatgaa 480  
 tcctgtcngc cgtg 494

<210> 3047  
 <211> 496  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-014-Q1-E1-B3  
 <400> 3047

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tcctcaaacc ctggagagag agagagagag tgacggggga agaagatgac ttctgctttg 120  
 tatgcttcg atttgtttaa gcagctcaag tcaattatgg ggacagattc gttatccgac 180  
 gatgttgtag ttgtgattgc aacgacgtct ttggcactag tagctggatt tgtgggtgtg 240  
 ttatggaaga aaacgacggc ggatcggagc ggggagctga agcctttgat gatccctaag 300  
 tctcttatgg ctaaggacga ggatgatgat ttggatttgg gatccgggaa gactagagtc 360  
 tctatcttct tcggtacga nactggaaca gctgagggat ttgctaaggn attatccgaa 420  
 gaaatcaaag cgagatatga aaaancagca gtcaaagtca ttgacttga tgactaagct 480  
 gccgatgatg accant 496

<210> 3048  
 <211> 458  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-B5  
 <400> 3048

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 cacctacacc gcttgggtacc tcaccatcgc ctcttttctc catgggtcagg cggaggggtgt 180  
 gacacattcc ggtccaacca agcttgtgtt gtactttacc ggagccacca acatcctcta 240  
 taccttcggt ggacacgctg tgaccgtgga aataatgcat gcgatgtgga aaccaaggaa 300  
 gtttaagagc atcctaactt gatggcaact cctgtacgtt cttcaacaat taaacgcctt 360  
 ccgtnaagct ccggccgttc taactggggc tttccgggng aaccaacttn ctcaaaccaa 420  
 ctccaaaacg ccttttctcc tcctcctccc ctaaaaac 458

<210> 3049  
 <211> 458  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-B7  
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 tctcctccca cttaccacct caccaaaaacc cccgacggca aactnnnnnnn nnnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnggagacc catctctcga cgtcaaagta 240  
 gtaaagacaa gacgcggcaa caaagtcaca gctttttacc ttagaaaccc taacgcaaga 300  
 ctcaacactt ctctactcct catgggaaaa tgctggcaga atttggaac aactccttcg 360  
 attccctttg gttcaaactc aaaaggtcaa atcctccgga ngtcaatcct caatnggggg 420  
 taatgaatta aattcaaggg ctaatggaag ccttctaa 458

<210> 3050  
 <211> 550  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-C1  
 <400> 3050

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 ctatcaagct tcatatcatc atcttcttct tctcagggtca agagccattc tatggtttaa 180  
 aggatgctcc tggctaattc cagcacttag tttctctccc tctgctctaa aagctacccc 240  
 attttatgga atttgagggt ggctttttta gcagatccca atgggatctc ctgtttcaga 300  
 tggatgatcat gtcgtaattt gtcattcctt caaccttctt tgcaaattgc atccttcccc 360  
 gaagaagaaa tggggnttcc tcntttggaa gaagaataat tggccnaaat ggggagcaat 420  
 caatcaatca atcaaaatcc aaatccaagg ttgccccaat cctcaaaacc cggaatgcaa 480  
 tgttttcaaa ccnttaaatt tanntttaaa ggtttggnnt ttaacccta aagggatggg 540  
 gctaaatcca 550

<210> 3051  
 <211> 440  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-013-Q1-E1-C10

<400> 3051

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gcaggctcgt agcctttctg atttctatga agcctgcaaa ggattggaac ttgcaaggaa 180  
ttttcaattt cctgttctaa gagagcctcc acaatctttt ctgacaacaa tggaggagta 240  
tattaaagaa gcaccgcgtg ttgtcgatgt cccagcgga ccaactgcttc taacatatag 300  
gccggatgat ggactgacta ccgaagatac tgaaccgtcg catgaagaac gtgaaatgtt 360  
accttcagat gatgtcgttg ttgtatctga agaacagaac cttctcccc gcctctcctt 420  
cagccaacgc tcagaacttc 440

<210> 3052

<211> 423

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-013-Q1-E1-C5

<400> 3052

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taaactttac cctctcttaa atcactcatc cgtttttcac ccagacagtc gttnccaatc 120  
ggcccctaca atggaggaag agcaacaaca acttcgtgtt ctcttcgga aatacgagat 180  
gggaagggtta ctaggcaaag gaacattcgg aaaagtttat tacggcaaag agataacaac 240  
cggagaaagc gttgcaatca aaatcatcaa caaagatcaa gtcaaactg aaggtatgat 300  
ggaacaaatc aaacgaagag atttcaatca tgagacttgt ccgtcatcca aacatccgtt 360  
gagtttaaag aagtcttggg tacaaaaaca aagattctcc ttaacaaggg aatacgttaa 420  
ang 423

<210> 3053

<211> 487

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-013-Q1-E1-C7

<400> 3053

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cccagatttc tacaggagct cgtgccctag agcggaggag atcgtgaggt ccgttgtagc 180  
caaggcattt gaaagggaga ctcttatggc tgcttctctc atgaggctcc atttccacga 240  
ttgtttcggt caggggtgtg atggatcgtt gcttctagac accagtggga gtatagttac 300  
tgagaagaac tctaacccta acagcaagat tggctcnccg gttttgaaag ttgtttgacg 360  
aagatnaang gcaacattaa gaagaatgaa atgccctaaa caactgtcct ccttggtgcc 420  
tgaacgccc n ttaaactcct aagctggcta anaagaactc cctcccggtt cccttaaaan 480  
ggtgggg 487

<210> 3054

<211> 430

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-013-Q1-E1-C8

<400> 3054

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ccggagaaat tcaaatcgct atctctaatt cgtcggagaa tccaccgtta ggtatataaa 120  
cacggtttgt ttctgaaatt agggtagcaa aaaatgccct tgtttatgcc tgacgaagag 180  
ctggcgcggc tatctagcga cgccgcgtcg gtggttgccg agagagccga cgagtacata 240  
cgaaagatat acgccgagct ggatagtgtt cgagccaagg ctgacgctgc ttccatcacg 300  
gcgggagcag acgtgttcgc ttctcgagca gaagtacctc tcgctgtctc aaggatttct 360  
ccttcccttg aatctcaana acgcnaaagc ttcantctga ttccgatgat tcgtttaanc 420  
tgaccttgga 430

<210> 3055

<211> 505

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-D1

<400> 3055

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ctngtcgtgc cgtcacaatc aagggtccac ccacgcgtcc ggnttaactt gggctcgtc 60
tgagtttgag ggtctgctgg agaagactcc cgctgaagtg aatgcatatc tttctagccc 120
agttgagtag actaactcaa tgatgagtag tggtagatgt caggcgaggg acacattgga 180
gaggattggt gagggccttg aaaaggagaa gtgtgagacc ttccaagact gcttaacctg 240
ggcacgactg aggtttgagg attactttgt gaaccgtgtc aagcaattga tatacacatt 300
tcctgaagat gctgcgacta gtaccgggag ctccaatcct gggctctgcc aaaaagaatc 360
cctccgtcca atccaantat cctccgccga accaaatccc ccttaaacnt taacacaagc 420
gaacngcaat ttaccaacaa anacattttg ggattccgaa nacctgantt gactaagaaa 480
ccaaaggga caacaaaaac tgggtt 505

```

<210> 3056  
 <211> 364  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-D12

<400> 3056

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gcncacgcgt cggggcggat catcggtttc gaggttagac tcgttccgga ggattttgac 60
aagggaaaga ttttcgaaca ggcgggatca ttctcgctt gaccaagatc gtgaattgga 120
tattgaaaga cagtgaattc agtatatagt atatacacac atacgccggt taaaaaaaaa 180
aaagtataaa cacacatgca tccataatta atccttaatt catgaaccat aatacttctt 240
cttcctttta actttttatt cttgtactga aatcttttgt atgtgtaaat atgaatggca 300
cactttttgt atgttacagt aattacaaaa acattgttgc ttaaaaaaaaa ncataaaaaa 360
gggc 364

```

<210> 3057  
 <211> 517  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-D2

<400> 3057

aacgtctagc ttgcccgtgc cgggtccanaa attcacgggt ccacncacgc gtccgcacac 60  
 gcntccgccc acgggtccgc ccacgcgtcc gcgcgtttct tctcctaggg ttagggttcg 120  
 acgaacgcag ctgttccacg cgtttagttt caattctcca tcgaagaagc cataatccga 180  
 ttcttaaaga gcttacatct gttactcaac tttaaagttt tgacgctaga gattactatc 240  
 ctcttgctgg gaactcaacg tgaccagact gtgtttgaaa gatagcaatg gctggagtat 300  
 tagctgggga ttgttcattc ggtgagagtg gtgtttcatc ttactccagg aattccaatg 360  
 aaaagcagga cganggttgc cgcgtggtaa ttttggaaga aaaagaaant tgaagaaan 420  
 tcacctnaa ggttgataa taattgacct taaagaaagg aacataactc cgcaagtcca 480  
 aactggncaa ttttgcaagg attaagcatn agaatta 517

<210> 3058  
 <211> 463  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-D4

<400> 3058

gtgccggtcc acaataacgg gtccacgcac gcgtccgaac acttctctct agctcacact 60  
 cacaacactc tctctctct gccataactc agcctgagat gtctccggaa gcttacgttc 120  
 tgttctttaa cagttttaac ctctgaacn tcgangcctt tgcttcagtc tcacttatca 180  
 tagccacagt tgctttcttg ctctcaccag gtgggctcgc atgggcctgg accgggtcat 240  
 ccaagagtcg ggtttcgatt ccaggaccat ctggttctct ttccgtcttc tccgggtcca 300  
 atccccaccg tgttctcgcc gctcttgcta aaagcntcaa ggctctccgt tgatgggttc 360  
 tcagttgggt tccgttcgta tctcantgaa cggagaangg taagaatttg agcactctgc 420  
 tttgtncggc cgtaagatc nctacaactt tgttcacgtg cat 463

<210> 3059  
 <211> 474

<212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-D5

<400> 3059

gacagtgatt tgtcacaatt gagcgagaag attagtttac tacttttcga gaacgatgac 60  
 caattggatc aagatgctca tgaatgaaat ctccaagaa aatgatgaan ggcaaccttt 120  
 tgcaggaatt ctgaaagaaa gcttacctc atgggctttt acaaaagata gcagaaaggt 180  
 ggaaaaggcc aagttgtttt ggttgaaggt ggccaaggng tattacattt tgnaccttc 240  
 ccttgggtaa aactgggcct tananccaac aataancccg ggggtaacct tnattttccc 300  
 aaattaaaag gttgggcca cattccattg ggggaaactt tccntnggga aggnaaaagg 360  
 gaaatttggc ccaaacccaa acncttggg gcngggcccc cggaacttt tancggnccc 420  
 naaccccaaa ntttccnacc ncggganccc aacctttccg gttttaacct aaag 474

<210> 3060  
 <211> 447  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-D6

<400> 3060

gcaagacgcg tgggcaagtt gcgaacatgt atctctggcc taagaccctt gtagttccaa 60  
 tccttgacct tgcaaaggcg ttcagaaggc ctgttgaat tgtccatgtg aaagttgtga 120  
 gggctgtggg gctgaggaaa aaagatctga tgggcggggc agatccattc gtgaaaatca 180  
 agctctctga agataagatt ccttctaaga agacaacagt taaacacaag aatttgaatc 240  
 ctgaatggaa tgaggagttc aaattctcgg tcagagatcc ccagactcag gttctagagt 300  
 tcagtgtgta tgactgggaa cagggtggga atcccganaa gatgggtatg aatgtatnac 360  
 tctgaaagaa tgggtgcctga cgaacataaa gcatcacctt ggaactgcnt aanactctgg 420  
 acggcggtaa aatgggcacc ccctgan 447

<210> 3061  
 <211> 474

<212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-B4

<400> 3061

aacgtctagt tgcccggtgcc ggtccanaaa ttnacgggtc cacgcacgcg tccgtatcaa 60  
 nttccctatc aaagtgaatg actttcttct ccaaaatcga tttctgaaac atcccatttc 120  
 ttgatttccc tctttgtcgc aaacccaaca aagtagagca aaaccctaaa acggaaacct 180  
 tccatggcga ttatctctga ggtagaagaa gaaagcagta gcagccgacc catgatattt 240  
 ccctttaggg caacactcag ttctgcaaac ccattagggt ttttggagaa agttttcgac 300  
 tttctcggag aacagagcga ttttctcaag aaaccctccg cggaggacga gatcgtcgtc 360  
 gcggttaggg cggcgaagga gaagttgaaa aaggctgaga agaagaaagc tganaaggaa 420  
 attttgaacc ccgtgganaa naanncnaag aaggaaattg ttaacctgtt gnaa 474

<210> 3062  
 <211> 491  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-012-Q1-E1-H10

<400> 3062

ggcgntcggg agcgcgcaaa aatcccgggg cncccaagc ntncgnaana aacctncttt 60  
 cnanacaana caaaactata tataaagatc atacatgtaa taacgtcctg caactattac 120  
 aatcattctc gctttgaatt aacgtggacg tcattgtttt tggattgtta atcaaaggcg 180  
 gcgttacttt tttttaatat aattgtttct ttaggatctt tgtctctgga aatgaagga 240  
 agacgcagga aaccttttgc atctcacgtc actgaaccat gtctctgtct tgtgccgac 300  
 cgtcgacgaa tctatgaatt tttaacaaaa ggtgttaggg ttcacccga tacgaagacc 360  
 tgaatcctta aattttgaag gcgcttggtt gtttggtcac gggattggga atacacctcc 420  
 ctgtgtgccc cagaaccaga gaaacttcca aagaaaactg cgantaatcc caanggttaa 480  
 cacatctctt c 491

<210> 3063  
 <211> 448  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-012-Q1-E1-H12  
  
 <400> 3063  
  
 gcaaagactt aagtaagtca aacagaaaaa aatggatctc ttattgatta tagccggttt 60  
 agtagcggct gcagccttct ttttcctccg tagcacgacc aagaaatctc tccggttacc 120  
 tccgggacca aaaggtcttc ctattatagg aaaccttcac cagatggaga aattcaaccc 180  
 ccaacacttc cttttccgtc tctccaagct atacggcccg attttcacga tgaaaatcgg 240  
 tggccgtcgc ctgcggtga tctcctcggc cgagctagcc aaggagctac tcaaaactca 300  
 agacctcaac ttcaccgctc gtctctctt gaaagggcaa caaacatgt cgtatcaagg 360  
 gcgtgagctt ggtttcggac agtacaccgc gtactaaccg ttagatgagg aagatgtgta 420  
 tggggaaaact cctcagcccg aaccgtgt 448

<210> 3064  
 <211> 458  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-012-Q1-E1-H3  
  
 <400> 3064  
  
 ggnctttttc actccacac gttctgctcc agcgatactg tgagagaatc tctgtgtggt 60  
 tctgaattct taggctggaa ttgaattctg aaatggcgga ggagtacaag gaagcgttgt 120  
 tggagaagca gaactatcac gacggatgtc ccggctgtaa ngtggagcag atgaagcagc 180  
 tccggcgagg atatccttac ctgcagcttt cttcgtttg ggattatccg tcctctccaa 240  
 cttctctaac aatttcctca actcctatcc cttcctcta actaatatga attganggat 300  
 tttggtgtcc caaananggn gaaaganant gggttttaag ctggttttgt tggttgcnc 360  
 tttatgcntg ggaaaacact gaattcngtg ttccggggaa ntgtggctga ttgttaaggn 420  
 agaaaaccca ttatactcct gggaactatc tcaattgc 458

<210> 3065

<211> 457  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-012-Q1-E1-H4

<400> 3065

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nnttgtttaa gtaggtanga ttcaaggcca tgacaacaga atatcaacct agctagtgtg 60
atatattctg atgaaattag tttgcctage nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnct aatttaantt 240
tggtgaagtg angccttaat ggtttgaagc cttgacaaga tngagagtan caaaaagaaa 300
ccatggatgc ctttgacgta atatnatgat tagaaagggt cactcnatat gttaaaanac 360
caaagacctg gaaaccggtt taaaattggn ttttggnttt ggttccggca aantcnagcn 420
cttgaatgtn aatncctacc tttttanggt cccctta 457
```

<210> 3066  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-012-Q1-E1-H8

<400> 3066

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gnaagagtct tgcttcagtt gaatcaaaga ttggtccttt ttttttcggt ttctcttttc 60
tgcttttttt tgttttagt ttctgatctc tcaggaaggc tttttataaa tttgcctca 120
atctctccgt ccctactact ctttttgatc aatttctacg ggaaaaagca ccaatcttta 180
aaccggggca tgtccttgta atcgagtatg ttgtgtaagt gatgaatttg tggtagatc 240
tggtgagaag tttcctcttt tttctcanat tgcggtaaaa aaaaagagtt ttttaataagg 300
aagagattga gattagattt tatcgctttt gtttgtgtga tatgggtaac gtgaacgcga 360
gagaagaagc gaatagtaac aacgcttctg ctgttgaaga cgaagacgct gagattgttc 420
tcgtgaagct atgtctgctg cn 442
```

<210> 3067

<211> 435  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-013-Q1-E1-A11

<400> 3067

gccaaaccct aataatctag tggcaagtac aaccttctac tctgaaagta caggagccat 60  
tctctgtttg gcaagaatag aaacagaccc agcggacaga acccaattgc gaatgacagt 120  
aggcacggga gacctacccc ttacatttga gttgaaagaa tttatcaagg aacaactaat 180  
tactgtccca atgggatctc gagctttagt tccagcagca ggtccagcac cacctgtagc 240  
tcaaccgcca agcccagcgg ctttagctga tgatccagga gctatgctcg ctggcttact 300  
ttaaattcat tgggccttcg tgttgagaga gtctaatact agtcataacg gggggaaatt 360  
gcaaaaacac atcccaaacg catagcattt cacttgtaa aacctgaact aatttgangt 420  
gatatatctt agaga 435

<210> 3068  
<211> 518  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-013-Q1-E1-A4

<400> 3068

ctgtctngct tgcccggtgc gtccanaatc aagggnccnc ccacgcgtcc ggnaataaaa 60  
gaaaagttag tttgntgntt gtatcgatna naaaatggng acgtcgatga tacagaggat 120  
gttcaagcaa gggacgaaga tcgtctgcgt cggccgtaac tacgcccgtc angccaaaga 180  
actaggcaac gccgtcccca aggaaccagt tatattcttg aagccaacat catcactatt 240  
agaaaatgga ggaacaattg agatnccaca tcctttggat tcacttcacc atgaagtaga 300  
actcgcttta gtgattggac agaaagctag agatgtacct gaatcaatag ccatggatta 360  
cattggagga tatgccgttg ctctgatata gactgctaag gaactccaag cttctgctaa 420  
agnatctggg tctcccaagg gccggttgcg aaangncaag atacntcaa tccctaacan 480  
ctcctgttct gccaaaaggn gatgggtgct tattccca 518

<210> 3069  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-A5  
  
 <400> 3069

ggaattaaga gagcaaaatg agcataaata ggaatctgtt gaatatcata ataatccttt 60  
 gtatatgtct caatttgggt tgtaacgatg gagctcaaga aagagagact gattctcata 120  
 ctatccaagt cagctctctc ctcccttcat catcatcatc ttgtgttctt tctcccagag 180  
 cgtctactac aaagtcttca ctgcacgtga cgcatagaca cggcacgtgt tcgcgtctaa 240  
 acaatggcaa ggccacgagt ccagaccatg tcgagatcct aagactcgac caggctcgcg 300  
 taaactcaat ccaactcaaaa ctatcgaaga aactcgcaac aagattaacg tcagttgaaa 360  
 agcaagntca acgggattct aaccgggcta aaagacngga agcacactcc gggttcaagg 420  
 taactacatc cgttgacggt ccnggcctcc ggggacaaca aaggaacgat tntaa 475

<210> 3070  
 <211> 459  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-A6  
  
 <400> 3070

ggctttcttc accattcagg atcagagatt cgtgacctga gaagacactc aatatgagta 60  
 agcttcagag tgaggctgtt agagaagcca taacgactat caagggaaaa tctgaggaga 120  
 agaagcgtaa ctttggtgag acagtggagc ttcagattgg tctgaagaac tatgaccac 180  
 aaaaggataa gcgtttcagt ggatctgtga agctcccaca tattctctgc ccaaaaatga 240  
 agatctgtat gcttgagat gctcagcatg ttgaggaggc agagaaaatg ggacttagta 300  
 acatggatgt tgaggctttg aaaaagctta acaagaacaa gaagccttgt taagaaanct 360  
 tgctaaagtc ctaacaagcc ttccttggnn ttctgagtcc gtcaattaan caaantcctc 420  
 ctccttcctt ggncccggtc cttaacaaag gnaaggaaa 459

<210> 3071  
 <211> 440  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-A7  
  
 <400> 3071

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gatgaacatc ccatcgaaga agatcgtacc ggtaccgaca ccgagtgaga aagttgtctc   60
tttggatatc cgaaccggac gagatctcca acgttacaac accgcagggt atcgtcaagt  120
cgtcggatgt gtaccatata gatacaagaa acacggagga ggagaaattg aagtgcctttt  180
gataagtgca cagaagaaag ggaaaggaat gttattacca aaaggagggtt gggagattga  240
tgaatcaata gaagaagctg ctttaagaga gacaattgaa gaagctgggtg ttacgggtca  300
gcttgaagaa tcacttggga aatggcaata canaagcaaa agacatacta tgaatccatg  360
atggtaata atgtttccct tgccttggtg atcagcaatt tgagataagg gcctgaatcc  420
tgaantcaag acaacgcaaa
                                                                 440
  
```

<210> 3072  
 <211> 453  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-A8  
  
 <400> 3072

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gctttctctc tatctctctc tatctctctc atttcttctt gcgtcaatgg cgactcaagg   60
tcaggttatc acttgcaaag ctgcggtggc ttacgagccg aacaagcctc tggatcatcg  120
agatgtgcaa gtggctccac ctcaagctgg tgagggttcgg atcaagatcc tctacactgc  180
tctttgtcac accgacgctt acacttggag cggcaaggat cctgaaggtc tctttccttg  240
tattctaggt catgaggctg ctgggattgt tgagagtgtt ggtgaaggag taactgaagt  300
tcaagctgga gatcatgtta tcccttggtt tcaagctgan tgtcgtgaat gcaaagtttt  360
gcaaactctg gaagactaac ctttgtggca aagntganat ntgcnactgg tggtgggaat  420
aangatgaat tgaccgtaan tcaaggttcc cgt
                                                                 453
  
```



<210> 3073  
 <211> 517  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-B1  
  
 <400> 3073

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gtgccgtcca gaanttcaag ggtccacca cgcgtcgcga gaaaacccta aacacagata   60
aaccceaaaa ctcaaaaacc aaatctttcc aacaatggcg tctcatctct ttaccogate 120
tcgaatctct ctctcaaaa ccctaaaacc caatcctttt acctcagctt caccatcag 180
agccatttcc ggtacaccat tcctctctca agatcctctg ctgcgaaccg aatcaacaga 240
tcacgacca tcaaaccatc aatcaacctc cagcgcgctt ccaccgaatc cagcaacagg 300
aagtcctctt taccaagaga attggcgtag tccgattcca aacactcctt cttcaaaca 360
aatctctagt ttcaattaag ggatttcnaa tcaaggctcc tggctcctgt atcaagagct 420
ctctctgga gaagccttg anatngaaac tcgcctngct ngaataatgt ttgccggant 480
gggantgntt tcgcaanegg ttgggnccgg aaatgaa                               517
  
```

<210> 3074  
 <211> 455  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-013-Q1-E1-B2  
  
 <400> 3074

```

cggntcagtg acttctgcaa accgtctaga cccatttttt gtttatctct ggacacagag   60
atcgcaaatt cttttttctt aaatggaagg ttccatgaac aagcgaggat acgaatgcag 120
tcaagaggat actgacaagc tgccagaatc aaagagacaa aaagtgcctg ctttagcaag 180
tgttattgtg gaagctgtca aagtagatag tctgcagagg ctttgctcgt ctttgagacc 240
gttgtttcgc agaattgtta gcgaagaagt ggaacgagcc ttatcaaggt tgggaaacgc 300
aaagttaacc tcgangtcac caagaaccaa aagaggattc aagaccgcaa tggaagaaac 360
ctgcaacttc actttaggac ccaaatgctc ctcaattatc acaaggcggg aaanttnaag 420
  
```

gaaaaccaag ntccggaaat caagttggtc ctaaa

455

<210> 3075  
<211> 458  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-012-Q1-E1-G9  
  
<400> 3075

aaaaatatct tcgttgaagt gaggggtgacg agaagtttct gctttcatca attaaagggtt 60  
tacgcgtgaa gcagatcatc agcaatggcg gcgtcgcaag ataagttgga taagatgaaa 120  
cttaggcaag attaccggaa tttatggcac tccgatctca tgggcaccgt caccgccgac 180  
actccctatt gctgcatctc gtgtctgtgt ggaccttggtg tgtcatacat gcttcggaga 240  
agagcacttt acaatgacat gtcaaggat acttgctgtg ctggatatat gccctgtagt 300  
ggaagggtgtg gagaaagcaa atgtcctcaa cttttgcctt gccactgaag tcctcccttt 360  
gcttcggna aactcctgtt ggnctccnac ccgcttctt ctgcaaggat tgaaattcaa 420  
caatccaaga ccaacaacaa atggcnaaca aatttgca 458

<210> 3076  
<211> 475  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-012-Q1-E1-F10  
  
<400> 3076

atccccggggc caccgaagcc ttcngaaaag aatanaagac attcttcaga aatggagcga 60  
tggttgacgaa atggatctca ttcttacct tgggtgtact gggcttctact ccaagagatg 120  
taacacctga agcaacgaaa aaggatgatcg agagagaaac acccggtctc ctctttgtta 180  
tgatgcaaga gagcttaaag atcactccat ttgcgatgct ctgcgctct gcggcaggaa 240  
ttagaggctc aacattgata atcaacatgc ctggaaacct aaacgcagtg gccgagtgt 300  
tggaggctct gttacctgca ttgaaacacg cactgaagca gatcaaagga gacaagagag 360  
agaaacatcc gaagcacata cctcacgcag aagccaccta ccgactgata catgggaaca 420

aaagctataa ntcaanccta tgagacgggg aganaaagaa ggaaaaggct gggtt 475

<210> 3077  
<211> 496  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-012-Q1-E1-F11  
  
<400> 3077

cttgccgntc cctaccgggc canaaaatcc cgggtcnacc cacgcgtccg gnnnnnnnnn 60  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnactaa tcagcaccgt 120  
ccatttttgt catctaattc tttcttactt ggccgcaact tccaaccaca tcacacactc 180  
tttctattcc cttatatatt cccatctcaa aagttcttgn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnc gccaatcgca actttcttgt ctttcaatgg 300  
gagagaaaagg tttgaagcgg tctggtgttg cgggtggtgg tgcattacta gccatgggtc 360  
atgtctctgt ttcagttccg ttcataatgc ttcattggat ccaagctcaa tgttccaaat 420  
gctaagggat gctaacttca acacaagctt ctactaaac tctctggnt ctctggctt 480  
tgcttaaaaa attgga 496

<210> 3078  
<211> 499  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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aacatccaaa ccgggaaagc cgttggtctc catacagtct tggttggtaa atcagagaaa 180  
atagatggaa gcgattacgc gtagaaagc attcacaaca tgaaagaggc attccccgag 240  
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atctcgattg aaacttctgt tcaagcttaa ctttatttag tactaaatat gatgatattt 360

acatatcatt gaatgtttca ataaaaatatac tatgtacctt tttttgtcgt ctatccatgt 420  
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 <211> 451  
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 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-012-Q1-E1-F5  
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 cgtgtttgga ttttctggtg tcgtctacgc tccctatgga gattacttga agttcgtgaa 180  
 gaagatcatt gccactaagc tgcttcgacc tcagggtgttg gagcgggtcac gaggtcttcg 240  
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 acgttgagat nggtaaggaa gcgacgatgc tcaatgaaca acatcttctg taggatgaac 360  
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atcgaagctt atcgacatgg tacgggtcat cgtgttctaa ctggacaggt ctaacttgtc 360  
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 <211> 444  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-012-Q1-E1-F8  
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 ggaggaaggt cgtttgatgg tggtcgatca nctangcngg aaaacagaca atcaacaaaa 180  
 cacttggaag agcgaccana gtggtggatc anactggaaa aaagggtggg gacaggattc 240  
 aaacaatagc aaaccatccg gttcgtctgc tgggtggttgt gctggaaact ggcctacctg 300  
 ggatactaac tcaaagaaag aaaccaatga caaacgggga gacgatanca aatcagcttg 360  
 gggaaccagt aacgathagg tgaataccga taacaacaat gacagttggn acaaaaagcc 420  
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 <211> 488  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 gtccaccggg aaatatgcca gtgcacgtag cctcaccggc cggaataacc gtctgcgtca 180  
 ccggagctgg tggatacatc gcttcttgga ttgttaagat acttctcgag agagggttaca 240  
 cagtcaaagg aaccgtacgg aatccagatg atccgaagaa cacacatttg agagaactag 300

aaggaggaaa ggagagactg attctgtgca aagcagatct tcaggactac gaggtcttta 360  
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 <211> 552  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-012-Q1-E1-G1  
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 tcttgtaagc gcaacgtgta agtagagaca tacacacatt tgtagtgtt tgtmntgtat 180  
 aataacatca tcgcatatag agaaaagaag ttaagacgac cgtatatatc gttttgaaaa 240  
 ccgggtcgga taaaaaaaaa ccggtttctt taaccgagtc ggcgcgcatg gagctatgca 300  
 atcaaaacaa tcacatcacc gccgtctcgg gcgattccgt tgaactggga acccgacggg 360  
 ccgaaacctt tgaaaanggg acccacctgg gaatgaangg tgaaaccgaa tgggtgaaaa 420  
 gaatntaagg aaanaagggc ggttgaaatt ttaaggaagg tgaaaacctt ngaccaaagt 480  
 gggcaaagtt accnccggtt gggctaaaaa ggaaggaagg aaggatttta acnggggtgga 540  
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<210> 3084  
 <211> 481  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-012-Q1-E1-G10  
 <400> 3084

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nnntctcctc gatcactctc tccaagatct antcaccgat cgtcgggaag aatttttcgct 180  
 tccgacgacg tttctctcgt ctgattttgt ctccgaacat cctacctaata cgtatttcggt 240  
 gctggatttg aatccggtga actgaatctg acaatttcgt tcccggaggt gtttaaaaaat 300  
 ggccgggacg ttgaataaat tgcggaatct agatgcataat cctaagatca atgaagattt 360  
 ttacagccgt acattatccg gcggagttat cactctctc tcttcggtt ttaagttccn 420  
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<210> 3085  
 <211> 488  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-012-Q1-E1-G11  
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 gtacaagact gttcttgagg acggtacggt tctcgcggtt cgtcgggttag gtgagaatgg 180  
 tttgagtcaa caacgccggt ttaaagactt tgaggcacat attcgagcta ttggtaaatt 240  
 gggtcaccgg aatttggtac gtcttcgtgg attctattgg ggcaccgacg agaaattggt 300  
 catttacgat tttgttccta acggcagtct cgtcaacgcc cgttacagga aaggagggtc 360  
 ttcgccgtgc catttacgt gggagactcg gctcaagata gtaaaaanggt tggctcgtgg 420  
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 cccttggg 488

<210> 3086  
 <211> 510  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-012-Q1-E1-G2  
 <400> 3086

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 ttttatcttt ctgtgttacc ggagaataaa gacgggtacct tttcactggt gangtaangg 180  
 ngaagatggc gactgttccg gagataaaga taatganaag cgagagctta ggatcatcgga 240  
 gtgacgtgtc gagcccgga gctaagctag ggatgcgtgt ggaanatcct gggatganca 300  
 gaaaccacag ctacgtccta acgataagct caacgcttgc ttgaaaagc atccctgtcc 360  
 cctgctttcc ctctctctc ctgttcacaa gataatgaga taagatttag acacaagttt 420  
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<210> 3087  
 <211> 459  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 tccggtagtg ctcaacatgt tgtcggcgac taacgaattt cagccgttaa atcgtcctgt 240  
 caacatctta accgccggtg ctccgcctcc agcaaccgta ctctccgag caagaatcaa 300  
 ttggattccg tgataaagtc acggatacgg gttaacggga aaccgccggg attaaaacgt 360  
 gtcaatgcgc cttggaaacc acaattggaa tcgtttaacg ggcgaagcga tngaaccaag 420  
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<210> 3088  
 <211> 447  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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<400> 3088

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tcgacggaga cctcagggtc gtggcgacgg tggaggcgga aaggatagaa tcgatgcact 180

tggacgactc ttgacgagaa tattgcgaca tatggctact gagctgagat tgaacatgag 240

aggtgatggt tttgttaaag ttgaagattt acttaacctg aatttgaaac ttctgcaaat 300

attcagttaa agtcacacac gaatgatgaa attaaagang ntgttanaaa ggacaataag 360

caacggttta ntcccatcga tgaaaatgga gaactcctga ttcccgccaa acaaaggcaa 420

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<210> 3089

<211> 465

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-012-Q1-E1-E9

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nnnnnnnnnn nnnnnnnngaa ataaaaaatg gctcacanta ggactttcac ttccagaaac 180

cgtagcgttt ctctctcaaa cccatctttc tccattgacg gatttgacaa ctcaactgtg 240

actttaggct acacgggtcc ttttcgaacc cagagaataa gacctcctt agtgcaaagt 300

agtggctcta ttcactctac tcgcagaaca gaacctctct tctctccttc tcctcaagaa 360

tctctgatt cctctctaac gttgatgttc aacctgaaga tgattcgtcc tcaaaaacgc 420

aatccccttg agatcgggaa attagggagt gaatgttcta acnga 465

<210> 3090

<211> 591

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-011-Q1-K1-E7

<400> 3090

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cccgattccg tcggatgnga ttccatcgac cattctacga agacttccat agagagaggc 180

catacgcta ttataatant agatgggaaa ccgcaagaga taccaaggag aagtctcttc 240

ccgncgtcgc cgatcatgag tangagacgg aaattctana gattagtcnc cntactgaga 300

agaatcacga accatttgac gggtaagcta ctatgaccgg cgtcgacaga cctanacgtt 360

tanaactccg cntattttct gaccgcggga acggaagtcg tcggaactta tgagatattc 420

acnatctaac tacgaacgcg acgcggacac taaggaagga ctgccttggc aataccgggt 480

tctaacggcg gnattttcac cgcttctaag gaccgtcgan tgcccagatt aaagaaaact 540

ataatntccg nttaagttan tacggaaaaa ccaaagggtg ccgtntttat t 591

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<212> DNA

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<223> Clone ID: LIB22-011-Q1-K1-E9

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ctctcatggc gatgaatttt caatttatgt gagattttat tccacaatcg gaataatttt 180

cctggcaatg gcgacgacca atgctccacc tgagctagct tcaggaaacc cttgctgcct 240

cgcttgcaa ggaagtaca taggaatgaa gaagaggcga gatgctttta aagaaggagt 300

aactcttctc cagaaggcta tagaaaatgt taatgctgaa aaatccaatc tcgagagaaa 360

atttggggag atggcgactg acggagatac taaggaaaat ggttcaactg tgaaagcatc 420

tttgagaaa gaaatatctc gtttgaagtt tgagatagtg tctttgcaac aaaaactgga 480

gcggaacctt aaagaaaaaa gtgaagaaac aaagcttctt caggatcaag cttctggtcg 540

agaaaaggag atcaatgaac tgagggatct ccttaagaaa gaaacattaa gggcagatag 600

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665

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<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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cacctctctg agatcttatt cgacctcggt tagggaggag agggacacct tcgggccgat 240  
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<210> 3093  
<211> 687  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<210> 3094  
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 <212> DNA  
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 gctggggtaa gaatttaggt tccgacgagc anggaagggt gtggtggctg tccgtaaaaa 600  
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<210> 3095  
 <211> 679  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 3095

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tcgcaaaagc aacaaaaaat tagtccgtac atcactagta ggtaccggcc gaagcactca 180
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 <211> 626  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-011-Q1-K1-F8

<400> 3096

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<210> 3097  
<211> 407  
<212> DNA  
<213> Arabidopsis thaliana  
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atcgataatg atggttaaca ttgctgcgga tcatagagtt ctagatgggg caacggtagc 240  
tcggttttgc tgccagtgga aagagtatgt cgagaaaccg gagctgctga tgcttcaa 300  
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<210> 3098  
<211> 692  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-011-Q1-K1-G1  
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cgtccgctga tgggaaatct gctcgtgcta ttggagttgg tggcataacc gtccctccgga 180  
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 actttaagaa taattactct agagagtcct aaggagttaa ggaaagatct atctcctata 300  
 gcgtagactc ctctgatcat gaagtctctc gcgttataac tgatggccgt gacggtgccc 360  
 cttatatcgt tctcttgacg attgatgact ttgagataac gccggagttg gtggcgaatg 420  
 gagttaagcc tgcgaccgat gtagtggta aagttaaggc taagtgtgcg gcccctatgc 480  
 tactaaccgg cgtagcccat acgaatttca attgcgatat ctaagttacc gccgatgaaa 540  
 atcgtcggaa cgactccgac cctcgtaaaa atatcaagaa ccggnaccgt cattggaaga 600  
 cgccggtgga ataactggta cgggaaatgg gtaaagtaaa angcgcggtat ccagcggcgt 660  
 caaacttggc ccgggctccg gataatggcc ta 692

<210> 3099  
 <211> 652  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-011-Q1-K1-E6  
  
 <400> 3099

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 cccgtaccgt cctctttaat agtattattg tcccgttctg gctcgccttg gcattggtgt 180  
 tggccgcctt cctcgacgag accttcctta agctaaagga aaccactctg tgcgatgaca 240  
 tgcccgcgaa gaaagtcaaa ctctgcccc acagcgacgg gccgccagtc ttcagcaagt 300  
 tttaggcctc ggaccttaata tcctactagg tcaagaatgc cgtaggtaac gacggggaga 360  
 agccgagctc taaaaaatcc gtcagcccga ccgaggcact cgtaagaaa gtcacttaag 420  
 atcaaaccgg tagtataggt cgacggacta gtctgaacgg tccttgacc tctcaggtaa 480  
 gccactgagc tccgctaggt cagactcgct cgagaaccgc actacggcat cattggtaat 540  
 tacaggaggg tccaccctcc cgatgaggtc cgaccggtac ctgaacagaa ccggctaate 600  
 tttcgagctc acaggagacc cgtcaatccg gctaattcga actccancgg aa 652

<210> 3100  
 <211> 679  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-011-Q1-K1-D11

<400> 3100

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 tnggtctggt tttatgatag ctttctctta agaagaagaa gaagaaagat aaattaaaag 120  
 ggtggttctg agttttaagg attattgttt gannnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnntt atctgattgc tctaataaat atgagaagct cgttgttcgg 240  
 atgaacatgc ccagggtcgt aattgacaat ggagtttgcc ctaattcaac tgctgtcaag 300  
 attgatagtg caagaagccc aggaatattg cttgaatctg tacaacttct cactgatatg 360  
 aatctctgga tcaaaaaagc ttacatttcc tctgatggaa aatggaatat ggatgttttt 420  
 catgtgagcg atcttaacgg agacaaatta accgacgaga acctaaccg ttacattgaa 480  
 aagtctattg aaaccgtctc attactgtaa aacggaaggg tatacgggtt taacccgctc 540  
 tagagttaac ccggaaccag accagagtcc ggtttactct caaaagggtt tccccgntc 600  
 tagctgatcc ttgnatgggt atggtgggtg aagcttaagg catggacccc ntaacgggca 660  
 gggattgcct ccatgaat 679

<210> 3101  
 <211> 643  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-011-Q1-K1-D3

<400> 3101

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 aagttatgag tgggaatctt ctcatgtgca tctcttcaaa ctgcatagag ggatcacttc 120  
 agctattgtc caggacattt gcttttagtca gcagagtcag tgggttgcta ttatttcac 180  
 caagggtact tgccatatat ttgttttaaa ctcttctggt agcgacgctg cgtttcaacc 240  
 ttgcgagggt gaggagccta cccgactacc agcttcatcc ttgccatggt ggtttactca 300



atcgttggtca agtaatcagc agtctttatc gccaccaaca agctgttgcc ctttctgttg 360  
 taagcagaat aaagtatagc agttttgggt ggcttaacac agtaagcaat gctactactg 420  
 ctgctactgg aaaagttttt gtaccatcan gtgcccgtgg ctgctgtttt tcataaatct 480  
 gtcactcatg accctttaac tgaactnccg gactaacgcn ttggagcata tcttagtcta 540  
 tactncatca ggccatgtgg gngcancatt gaacttntgc cattaagttt ggnccagaat 600  
 tnaccctgga aaatgggttt ngaaaagtgc aaaaaaacat tcc 643

<210> 3102  
 <211> 662  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-011-Q1-K1-D5  
 <400> 3102

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 gctgtccca gactcgcac tgctaaggan gccgncgaag ctccctacng acgccgttct 120  
 agatctgtat cttttcactt agaactcttt ccacggcgct cctaaattgg aactgaatct 180  
 aatcttctgc ttcgttgctg tcaactggtga cccggcctcg gattctcttg tcaactctga 240  
 agtcgggtcc cctgacggct cgacttccaa ggatgtagac cgtccctcct agttcaaccc 300  
 gaacaagcct ccggttacgg gatggttcgt gcggaaggaa gtgtgcctca tgtcgtaaag 360  
 aactccgcta ctcaacgaat tcaactccgtg agataacgac gccccgagga gaaaactacc 420  
 ttactagacg agcaaagcgg aaacgaccgc cttcacggcg accggggatc acatagatcc 480  
 tcccgtactc acgtactatg tgaagaatcg tggatccacg cttgcggtg tcganaacgt 540  
 gacaatttaa accggccctt gtcctttacg tacactacgg atnggtacta ctcacggtac 600  
 tctccgggat cgataccacc tganttaana ggtagggtta cntatangga aatccccgat 660  
 ta 662

<210> 3103  
 <211> 684  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-011-Q1-K1-D6

<400> 3103

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attccaaaaa aacaaaaacg gccgacacgg accggaagag gaagacggca ctactagacc 120  
cattaaatct attcaagtcc ctctaaaagt cctatgcaat caccttacta ttgcctaaaa 180  
ctgctttcgc cctactcttg actctacgcc tagtattcgt ctcccgcttc gtccatgagt 240  
cccattcctg ctctttcgag tcaagaaagt ctgggtact ctgcgacccc ttctaacgga 300  
tactagagtt gacctctaaa ttagtctcct aagtcccgga gactagccct agaccagccc 360  
ctgttgcccg cctcgacatc agattgcata ctaattattg cgaacggaat tggaggtcag 420  
acctctctac tatgaagtag acttagtccg cagtagtgac tcgtgaagac gaagaagaag 480  
aaggcacact agtggagtct tggctggtgg cggatggagc ctgccgagcc cggcatttgt 540  
antcagtcac gcggaagaga ctanangtcc cggggaaaga agatncacac cttgactgac 600  
attgaagacg gaactngcgc nagcatattg tccnggatct gggggaatta aaataccggt 660  
tnggaaaatt taaacncctt ggct 684

<210> 3104  
<211> 710  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-011-Q1-K1-D8

<400> 3104

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tgcttggtga gtcggcgnaa catagtctta gggacattgt gtcgcggagc cttggtgctg 120  
aacgnngggc tanaagtccc atatggngca gttcatgttg gcttaggaac ttggcccaat 180  
ggaatggcca aagtcgtcat tagtcccttc taagctactc cgattgtcgt cctacctgat 240  
cttcacgaac ggccttgtag cgtctaagcc acaggaaagg aagtaagagg agcgcataat 300  
gtagggtgag tgaacggaac gataccccggt gtattaaata ccaatacacc cagagactta 360  
tggcggggaa gaggttaaga aatctttggt gaggacttga cgacgattgg aatccatgtg 420

gcggtccatg ccagaggatc ataaggcgat ctccccgatg gctggaaaat atctcttaac 480  
tactcttaag ttentgtccg ccgcaagtac cccatagtgc atgactccga ctgccggaag 540  
ggcaccatct gtcattgtcc taacgtctaa gcgagcccgg tcgatccggt ggagatgcat 600  
taattattgc ctaagaaacg tacagaagaa ggctgattag cgggtactacg cgcgtccaca 660  
ttgagctaata ggtaccttcc tccgtgtcga tttgaactcc ccgatctgaa 710

<210> 3105  
<211> 731  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-011-Q1-K1-D9

<400> 3105

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cggngactca ctgagtttaa acatgtggga atcgttggcc tgtatgatcc atgcgtcgggt 120  
accaaagccc aagaccactt ttctcaagcg taccctactc tctactctca ctttccagga 180  
atatggagta acgttatatc tatatagaac accatacata gtagatatat ccaaagagag 240  
agttgggctg gtgcttaacc ttggagctat tgaaggaggt gctgatgctt ggaaaaacat 300  
ggacgttctt gtcttcaact cttggcattg gtggactcac aaaggccaat ctcaaggggtg 360  
ggattatatt agagatgggt cgtctttggt gagagacatg aaccgtcttg acgctttcta 420  
caaaggactc agtacttggg ctgatgggt tgatcaaaac gtcgataccg gncaaaactc 480  
gagttttctt tccaaggcat ttcttccact tcattaccaa ggggaaaggg gaatnggaac 540  
cgagccccc an gnaagaact ttgtaantgg gggccaaaat ggcaancccc ntttgggggt 600  
ggggaatcca aaggtttanc ccccaaagtg gggccaaan ccctttccaa ttcccnttaa 660  
agggaaattn nntgggggcc caaaaaaggg gggtttngaa anttttcnn attggnaaaa 720  
aaaaaggccc c 731

<210> 3106  
<211> 690  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-011-Q1-K1-E1

<400> 3106

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agccacgata ttcgagaaaa gaagaagctc gttatcaagc atagcgggtgc acaaacagtc 180  
atactcgata accaaatcaa agccaaagat ccgtataatt cacatatttg ctccggagat 240  
catcaagacc gacgttgcca acttccgtga gtcggtccaa agcctcaccg gcaaaccaga 300  
cgaccagaga acttccaagg caaacctag aagagatatg catcgtcttc atcgtcaagt 360  
ccaagacatg atcaacacgg agaaactaag agaacccgag cattgtgata aagagttctg 420  
cttaaacgca gaagagctct cgatgacttg gaacggtaat aatggcgctg gtgaaagctc 480  
tggagggttc ttgaatggtt tgggagattt cgaagggttt attcaagaac ttggtgaatt 540  
tccttatttg cccttgctct tccattgatg cttctgcttc ttctaacttc tcttcttntc 600  
ctcatttaca tgggtggatca agttttctca agatcaattc gcttaacttg ggcttnttaa 660  
aaggatgtgt acctttttca tctttttatt 690

<210> 3107

<211> 700

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-011-Q1-K1-E10

<400> 3107

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agtcanttgn tccccttnnt tgntaaacnt ccanaggggg gattctaaac cttnttcant 120  
tctcctggtg gtctcttcan tgcaccatgg ctatttacga tgtgggttcag cttgtgagag 180  
ctgatgtttc gacgattgct cttggcattg ctgcatcaac agcttcgatt attcttggtg 240  
cggaactaa aggcaagcgc ttgctatgc ccaacacgag gataatgatt catcaacctc 300  
ttggagggtg aagcgggtcaa gctatagatg ttgagattca agctaaggaa gttatgcata 360  
acangaacaa tgtcaccagc attatcgagg gatgtactag tcgatcgttt gagcaggttc 420  
tgaaagatat tgataggggc cggtacatgt ctccaattga agcagttgag tatggtttaa 480

ttgatggagt tattgatgga gacagcatta ttcctcttga acctgttct gatagagtga 540  
aacccgagag taaactacga ggagattagc aaggatccca tgaaattctt ggcttccgag 600  
atcctgatga tgagactact aaagcccaac tcgtctagaa gcnnnggatct tcaaattggg 660  
cttanactag ccgttccagg aaaactcaat ttcttctgcg 700

<210> 3108  
<211> 683  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-011-Q1-K1-E5  
<400> 3108

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acgccgccgc cggagggacc atcttcatct tctccggaga aggtaagagc atcattatcg 180  
cccggatccc gttaagttcc aggtgtccat tctgacaaga aggccgccat ccgtcctgt 240  
taattgctat aaggatttat tcccggaact aaaggaggcg tagtcggcgg cgggcacagc 300  
taggcgacct tcacggacga gcctaactcc tactctatcg gagacaccta tgtgaccatt 360  
gtccttaata attctccatc gtcgtaactg atatctggac cccttacgag atgctctaac 420  
ttgataaggt ctcccccaac aggtcgcgtt tcttgaacaa agaagggaag tgcagcccta 480  
gcgataccac gcctangaga ccgataaagt cccgggacac ttaanantag cttcgaggag 540  
tccatcnttg aggagacaaa gaagcccgtt angtcgggac accgantttc gtcctcacta 600  
tcccgaaga anaacggacg gacggcnaag gactggctnc cgaggaagaa catcaccggc 660  
tagggntcga aggaaaagg gac 683

<210> 3109  
<211> 610  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-011-Q1-K1-D1  
<400> 3109

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tgaaattggc gatactaaca aaaactttga cgaggatggc cgcgacaaaa gaactgggac 180  
atggatgacc gggagtgcac acataataac ggccgtgata gggtcgggag tgttgtcttt 240  
ggcgtgggca atcgcacaac ttggatgggt ggcaggaccc gccgtactaa tggctttttc 300  
tttcataaca tattttacat caaccatgct tgccgattgt taccgttccc ctgaccctgt 360  
taccggcaaa cgcaactaca cctacatgga agttgtcccg atcctatcta ggaggaagaa 420  
aagtgcatt atgtggattg gctcaatacg ggaatctgat tgggataaca atcggnttcc 480  
caatcacagc ttnaattagc atggtggcag tgaaaaagtc naattgggtc cccaaaatgg 540  
gcataatggt aaatgggccc ctttaaacac ttcctttatg ancatatttg gaatcttcca 600  
antattctta 610

<210> 3110  
<211> 659  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-011-Q1-K1-B8  
<400> 3110

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cactgtggtg accagccttt ggtgaagaag aagaagagag acnggaaaac ggtgatcaac 120  
ggactcgtca gtctagtgtg gtctctctag aaggaagtcg acgctaggac gacgcgcgtt 180  
gtcgaggcct actccggaat taagaaccgt aaccattaga cggagtgcc a tgctcctaag 240  
agatgtaatg acggcaccca tactccta at tccggtaaaa tacgggaaaa gtcttagacg 300  
gtcgtcagag ccaccgccgt taccgagaat ttataggata ctactgctta gctagtcagg 360  
tttcacggat agagagtcgc gccgaagccc gtctagcata tcggagttaa cgttaccgtc 420  
ggaagatata tcttcggcat tcctattaac tagacgtaga tacttcctag cgaattaagg 480  
tcgccgacct ccatcggttt aagaatcgat tattattcac taaggaaggc gtcccgggaa 540  
ataccttaac taccgnccct cgcgattana tctcctaacg agaaccggcg gtaccggcac 600

ttantaatat tagggaaagt atataccggg cgtccctcg gtctcggtc tgtacggnt 659

<210> 3111  
<211> 660  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-011-Q1-K1-B9

<400> 3111

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gggatcgctg caaacgggat ctgcaacatc tgcttcaaag atgaacctgt tgaattcgcc 120  
tgtgaccctt gcaatttcga tctctgcaaa gcttgctcag atcttcccca gaaaatgtca 180  
caccatcttc atccggagca cctctagaa ttctgtatag gcgaagatga tcagaagact 240  
aaacacatgg tgtgcgtcgt gtgcggaaac atgtcttctg gagccaaata ctattacgag 300  
tgtagcaagt gtgagatcta cctcgatttg ggctgtgcac ttcagaagaa catagcgacg 360  
agttgggaag ccaaagaaat gctccattac agccatgaac acttacttaa aagggtgtagg 420  
ccaggaccag attccaaaga ctcttgctt ctctgtgagc aacctctctc cttcactgca 480  
, atatgttacg gttgcgttca ttggtacttg nttttcacg agcggttgct tgatctacca 540  
acccgagatt caacatccgt gcattctatg caccctntna aacgccttaa ttatatcaaa 600  
cttttgacng tgagaaatct tgtaatgcct gtcacgggca atttgtggtg tccatttggt 660

<210> 3112  
<211> 610  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-011-Q1-K1-C1

<400> 3112

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gctataagta ctagtctctc gtacttccga gaagaagatt cacaatataa gcccgaaacag 120  
caagactatc ccaccatact cacggacttc gagatccaca gggtagcggc cacgggcaag 180  
gcctaagagc ccgaaaaggc cacggaggag aacgaaacct tcgcctccga ctaggctatc 240

ccctagggga acatgacctc gtactccgta gtcacccacg gctacgatta ttcagcgtgg 300  
 tgcacttccg ttcacgagtc aaatacctcc agaaaccgga aatgcggtcc aaaccgtaat 360  
 cctgctttta ggcctctcta cactagatc tccccggcga gatgaaatca taaggagat 420  
 tccgtctctt acgcantaat cgtcgtagga tataagccga cagccggttc ctccaccgac 480  
 cgttcaaagt aagcccttgt aagacacaat cagggggaac ggactanaat aaacggcaaa 540  
 ccggaaatac ccctagaagc cctnattacg gaggnactc ggaccggatc cccttcgnaa 600  
 gggaaatttc 610

<210> 3113  
 <211> 666  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-011-Q1-K1-C10  
 <400> 3113

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 cgggctccag agaagtcgaa atgatgggct cagagaatgc cgatggattc gaagaaacta 120  
 atctcaatgc gcaaagggat gatatggaga atctcgacct aggagtagat ggtggtgacc 180  
 atcctctgaa gataagcgat gtcaacggtg atacatcgaa ctctgggttac cgtagcgcca 240  
 tgtcaacact ctncacgctc cgtgacccgc tctcgccgcc accgaccgtt atgattccag 300  
 ctgattctga tccactcctt gcgccatcct cctacgaaga tttccgcagc agcttcagct 360  
 ctaagccgat cagcagcgat aactcctaca tcgagcctcc gtcgtatgca gatgttatct 420  
 tcagtccctt tgatgagaac tcagatagcg agattaacgg taccgaggat aatagccttc 480  
 atagtcaatt ctgagattca ctatcgagat ctcttcttct tcaagctctg attacatcaa 540  
 gatcactgna tctaaccctn agaaagagca ggagatttca aattccattg gtggaggaaa 600  
 cacttacatt acctacaaa ttcgaccaga acgaatttcc tgcttttggc gggccatcgg 660  
 agttta 666

<210> 3114  
 <211> 718  
 <212> DNA  
 <213> Arabidopsis thaliana



<223> unsure at all n locations  
<223> Clone ID: LIB22-011-Q1-K1-C5

<400> 3114

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ctcgtgtagt agtcaaattc taatgcggaa gtagcacccg ttttacnacg aaatctaaaa 120  
agagcggaaa ctatatcccg gtaaaagacg ggaaataccc gtatagagga aataagttca 180  
tgattttctca gtgacctcag tattcggtta aagaacacct taaaagataa taggaaaacc 240  
actctttact taatctgtaa agctaaaggt aataggaagc ttctaaaggc attaccatgt 300  
actaacatcg ttgaaattca gaatcgaca aaagcccttc gcgcttgctt ccgcaattgt 360  
ctaggtcagg tagtaagaaa gcgaaaaacc tccctcccc cgccctcccc ggccaataat 420  
aaaccccata gtcgaaata gaccgggata accgcacagg actcttaca aaacttcatg 480  
tagcgctacc aaaaaaaaaa aaaaaaaagg gtggnrtgtct canaggactt aagtccatgc 540  
atgtgcgtac cgttgaaggt ncaatcccc ccacaggggt attcnaacct aaccnatccg 600  
ggttgcnngc cccattaatg cnnnngatcc ggggaaaaat tttcgggtgc ccattttaat 660  
cccaaactgt tcccgnagn aatacctttt tnccccngtt taanccgggt gcaaacaa 718

<210> 3115  
<211> 661  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-011-Q1-K1-C6

<400> 3115

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tcttactct ccactatcgg agtctatggg gggtattgta gttctataga ttggagtcct 180  
taaaaaagtt acaaactcta cttaactcct ccgtaaaatt attatacatt tcgttccacg 240  
cgcttatcta tctcttgctc atgtaaatga tacttaaata agtttcaaatt gccagtcga 300  
gattgtcaca gttgcgatat caagttgagt ttaacttatg aagtctcctg ctctgtgctc 360  
aatatgcacg aagggctcca agaagtgtga ggctgaagtt actaaagacc gtgctgagga 420

gacgaatgac attgccgatt gcccgattaa actcgcctaa gatcgaagcc gcgcgggagc 480  
gttaaagact aagattagcc cgtgcattat acgagcaacg tctagatccg gatcancgtg 540  
gtccccgatcg atgagaatat ccgtcttgac gggcctctgg gctggggccac ggacgggagg 600  
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t 661

<210> 3116  
<211> 636  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-011-Q1-K1-C7

<400> 3116

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gagagtcagt anaggacggc catctcggcg ccgaggccag ggccatctta acgaggatcg 180  
agaccactac tagagtcac tgcatctana acgcctccg cgagaagggg aggagaacca 240  
gggaaccgat actctccgct tagaagagac ctaagcctta gccgatagcg ccgagtctca 300  
cgtcgagaag gccataata gaggtctctg cgttaccgtc tantcgagct ctcattgcat 360  
aagtcctctg gcggctccgt cgctgtagg gtccgccacg gcgccccgag acccgccacg 420  
gagagcggag tcaanggacg cgaggctact gcgagcggaa agtcntgcgt cgtatgcgtc 480  
aagcttacga agcctaagga cggncattcg ggcctactcg gctaatttat ccaaggaaca 540  
tactgacgtc nancgaaata cgccccgtct anatangggg cgccgggaac taaggcgaaa 600  
ntacttccga tcgggatctc ctggtaaact aggatt 636

<210> 3117  
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<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-011-Q1-K1-C8

<400> 3117

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 ttgcgactgc ggcttaagag gttgcggaag atgcggaggt tgcgttctgg aagaaatgaa 180  
 acggggcctta gcgattaatc aggetgctca gcggtcgata acaaaacaat gaagtcagag 240  
 tagactcact cctacctctc tttagcaaag gagcattaaa ctacagacta ctccgccggc 300  
 ttcatgccga aagatgaggc cacgaagact acgttcgcct acaataaat tanagtcggc 360  
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 ggcgctaagc gcctcaagga agccgtcatc gttaccagag gagtcaccac ctccgtcaag 480  
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 cgcgttcccg caaggccatc ggcaaacgcg ggctccgcat ccgngaanaa cggncntccg 600  
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 aac 663

<210> 3118  
 <211> 673  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-011-Q1-K1-B7  
 <400> 3118

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 aagtctcatc tgacctcta taacttgta cgaatctata agtccgctcc tctcctaga 120  
 aatagtcaa agactccgc aagtacttcg cagacggacc tctcgtcggc ccagccgacg 180  
 agaagaacac acctgaacgg agtgcaatca ccaccggatt ctccgacatc tctcagaag 240  
 gaggaccccc tcacgttacc acgtacctt tataaaatca cttcaacagt ttattcatgg 300  
 cgtggcccat cctagacacc cggctactta atgcccactt tgacggttgt gcccgcacac 360  
 tcacctcata cttcttcggc gacgacttaa gcggacacga gtccgtaagc gagtgccgga 420  
 tgttcgccta tatagccgag agcactacgc cgagcaccac actaacgtct ctcggcttta 480  
 atgatgaact cttagtaa atgccaggtcg tcaaagaacg gagagagaag agagacgagc 540

ctaagaagaa agcgagttgc cgcgctagaa agctctaaga aacggcccga ctaaagaata 600  
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 accttcccg aa 673

<210> 3119  
 <211> 484  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-010-Q1-E1-D5  
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 cgatattgga gagtttgggt ttcggcggtc caatcgccac gtggccgatg tacgcggaac 180  
 aacaactaaa cgcgttcacg atggtgaagg agcttggttt agccttgagg atgcggttgg 240  
 attacgtgtc ggaagatgga gatatagtga aagctgatga gatcgagga accgttanat 300  
 ctttaatgga cgggtgtggat gtgccgaaga gtaaagtga ggagattgct gaggcgggaa 360  
 aagaagctgt ggacggtgga tcttcgtttc ttgcggttaa aagattcatc ggtgacttga 420  
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 acaa 484

<210> 3120  
 <211> 353  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-010-Q1-E1-E1  
 <400> 3120

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 ggacaatgga gctttcaaat ttggcaaaag caggattgtt ttaaattatt ttaatattgg 180  
 gttaacgtct tttttgttt gtttccctct attagctaag ttttggttta gactttagat 240

cgaattgtgg agttagt tttgacttt gtttacatca gcttttgttt nnnnnnnnnn 300  
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<210> 3121  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-010-Q1-E1-E10  
 <400> 3121

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 gccgtcccca agcgctacga tctccgctc aatcccgatc tcatcgctg caccttcact 120  
 ggaactgtag ccatcgatct cgacatagtc gccgatactc gtttcacgt tctcaacgca 180  
 gctgatctct ccgtcaacga tgcctccgtt tccttcactc ctcttctctc ctctaaggcg 240  
 cttgcagctc caaaagttgt cttgtttgag gaggatgaga ttctcgtgct tgagtttggt 300  
 gagattcttc cccatggagt gggagttctg aaacttggtt tcaatgggag tactaaatga 360  
 caaaatgaag ggattctaca gaagtactta tgaacataac ggtgagaaga anatatgggc 420  
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<210> 3122  
 <211> 499  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-010-Q1-E1-E3  
 <400> 3122

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 anantanaga tactacaaag tatacgacaa cttctttttt tgttttagt aataattata 120  
 gccaaaaata gacaaacaaa atggagagaa agcctcttga acttgngtcg acggataacc 180  
 accagaatcc ttctccgcc gtatacgggtg gctctgttac ggcggttgac tctgttgaag 240  
 aagatgttca gaatcagaag aaagtcgttt atagaggctg gaaagtcatg ccctttatta 300  
 ttggaaatga gacatttgag aagcttggga tcattggaac actatcaaac cttctggttt 360

atttaactgc agtcttcaac ctgaagagta ntacagctgc aaccatcatt aacgccttta 420  
 gtggcacaat taatttcgga actttcgttg ctgcttttct ctgtgacact tacttcgggc 480  
 gatacaagac tctaantgt 499

<210> 3123  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 aaatctgaag aattggccag ggtaactttt attttgaagt tgttgagtga tattgttctc 180  
 atgtacctac atgggtaccag tgtcactctg agacggggata cagaaatctc tcaacttcga 240  
 gggccaatc tacctgatga ttcacctgga aatggagggt taatttacca tgcattcat 300  
 cgattgcttc ctatatctct cgaaaagttt gttggacctg aagaatggaa ggagaaactg 360  
 tctgaaaagg cgtcctgggt tccnggttgt tttgtgcagt ccttccaatg aanggcgtaa 420  
 aagaataatc aatgagct 438

<210> 3124  
 <211> 437  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-010-Q1-E1-E5  
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 agctgcgatt aagcaacgcg aagccattga agctgctcaa agagctagaa gacttgacgc 180  
 catcgaagcc cagattaagg ctgatcaaca tatgcaagag agtttagtat ctggagatgg 240  
 aatagtgttt gaacgagtct tccaagctgt ttcttttcaa ggaaatggag ataagattaa 300

actaccacca tcatgtttta ctgagttgtc tgatcaagga gctttcgata aaggtccttt 360  
gtattttgag ctctctgttg ttgaccatcc ggataatann nagacaacac attctgggtgt 420  
tcntgagttt atgctga 437

<210> 3125  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-010-Q1-E1-E9  
<400> 3125

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cgcattcaca gcttcaggta gttcaaattcc caaagatggt gctgacgtgg atgtccgaga 120  
ggaatatgca aacgcctttc gtacggaatc atacaatcac ttttggacac gtgtcgtaca 180  
gctaagccgc aaaaagtccg cagtgtcttc ttcttcttct tctccaccaa tcgaatcatc 240  
ctccacgtca gctcgtctca tgtcttatcg cctattcgcg cacaattctc tagaccggga 300  
tctgaatacc attactcgga tactanatgt atcccgggtc gggcnaaaca cccgaaactc 360  
ttcncncnga ttacttcttg gaaacggnaa angctttctt gctttgcacg cantta 416

<210> 3126  
<211> 469  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-010-Q1-E1-F1  
<400> 3126

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gatgcaagct ttgcttcagc agcagagact gaggcaacat cagcagatgc ttcaatccat 180  
gtcaccctct cagagactcc aacttcagca acagcagcag ctgagacagc agttacagca 240  
acaaggaacc caacagattc ctccaatgt acgtccttat gaagttggcg tctgtgctcg 300  
gaaattgatg atgtacttgt atcatctgca gcaacggcct gctgaaaatt gcattaccta 360

ttggaggaaa tttgtggcag aatacttttc acctcgtgca aagcagagat tgtgcttgtc 420  
acaagtacaa aagtgtctggg caccatgcgc ttggcatgtt cccanaggc 469

<210> 3127  
<211> 417  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 3127

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cccactaagg atcctcagaa ttctaaagac aagtgtgtgg gaagtattca atttggctcc 120  
ttgaatcttg ctgcggaaaa ttcttcagta aatactaata gcgagttgaa gaaaggtgag 180  
gctgatggga cagttaaatc tgctgggtct caagagagac ttgatgcttc tagacctgcc 240  
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ccagagcatg tggtacaaaa tggaatcata aangagatct ctgaaagcaa caaatctctc 360  
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<210> 3128  
<211> 481  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-010-Q1-E1-F3  
  
<400> 3128

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cgcaatgctc atcacaagct tcatccgagc tacggacaan accttgtcac tctgtccac 180  
ggctaagaac acagctgcgt ctatagccaa atacacagcc accccaatcc aactccaatc 240  
catcgtccac tacgccactt cacacaccgt ccctcaacaa tctttcgagg agatctcgat 300  
ctctttaaac gtctcaagg agcgtctccc ttgtaacttt ctagtctttg gcctcggccg 360  
cgactccctc atgtgggcct ccctcaatcc aggtggcaca actgtgttct tggaagagga 420



tinctgantgg atagaggccg tcctcaagga cgccncatcc ctcaagggcc aacatgttca 480

a 481

<210> 3129

<211> 491

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-010-Q1-E1-F6

<400> 3129

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catcgctga ttctccgact ctcgatacat cggagcaggt ttacatctct tctctcgctc 180

tcctcaagat gcttaagcac ggaagagctg gtgttctat ggaagtcacg ggattgatgc 240

ttggagagtt tgtggatgaa tacactgtta gggttgtgga tggttttgcg atgcctcaga 300

gtggtactgg tgtagtggt gaagctgttg atcatgtntt ccagactaat atgctcgaca 360

tgcttaacca gancggaaga ccttgagatg ggtgggttgg gttngtatac attcacatcc 420

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tcanggaact g 491

<210> 3130

<211> 447

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-010-Q1-E1-F7

<400> 3130

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ttttccgacg atatgaagct caccgttaaa actctcaagg gcagtcattt tgaaattagg 180

gttttaccct ccgatacgat aatggcgggtg aagaagaata tagaagattc acaaggaaaa 240

gacaattatc catgtgggca gcaattgttg attcacaatg gaaaagtttt gaaagatgaa 300

actagcctgg tggagaacaa agttacggag gaaggatttc tcgtcggttat gcttagcaag 360

agcaaactctg gaggttcagc tgggtcaggc ttcggttcag acttcttctg tttcacaacc 420  
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<210> 3131  
<211> 441  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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gagcacctcc tagtattttt gtgaatgatg ggtcattcat ggaaagattc agacagcttc 180  
aacaggagaa agataaagac aaggataagg ttgtccaagt tgaggattct aagccggtga 240  
agattatatac aaatcccaaaa cctgctgcta ataaaatttc cattggatta aagcccaatg 300  
atgcccgaaa gaaaggtggt aagcttgctt tcagcttgaa gcaaaagtct aagcttcttg 360  
cacctcctgt gaancttggt acagaagaag atgaggatga tgaggatggt aaacatgaac 420  
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<210> 3132  
<211> 448  
<212> DNA  
<213> Arabidopsis thaliana  
  
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ttgcagacat gtccaaatcc acccaagaag ctaaaaccg gacactattg gtatgataag 240  
gttgctggct actggggaaa gataggagag aaacctagtc agattataag tcctaacaac 300  
agcataggag gatacatcag tgagaaagta agcaatggan aactgaaat ttatattaat 360

ggccgggaat aaccaagcca gantcacgat gctcaattgg gcgggggtga attttnaagg 420  
aaacctcatt ttgggtccaa tcanatgg 448

<210> 3133  
<211> 497  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-010-Q1-E1-D4

<400> 3133

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gccaacgggt ncctggcaaa gttagtgaag acgacaagct tggtgagtat gatgctttgc 180  
ttctagatcg gtttctcgat atcctccagg atttgacagg tgaagatctc cgtgaaactg 240  
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aggagctagg gagtgtgcta acgagtttag atccaggaga ttccattggt atcgctaaag 360  
ctttctctca tatgcttaac ttagccaatt tggctgagga agtgcagatt gcttatcgcc 420  
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ccgatcttga anaaact 497

<210> 3134  
<211> 469  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-010-Q1-E1-B6

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cggaattaag gtttctttgt taacctctcc attgaagata tgggggaact aaacggagtc 180  
atcattccga ctatagactt ggaagagggt tctgataaga ttctgaatca gaaaatccgt 240  
gaagccagtg agagatgggg atgttttcagg gtgataaacc atggagtttc attgtctttg 300

atggctgaga tgaagaagac tgttattgat ctctttcaac gtccatacga ggtgaaagtg 360  
 cgtaacaccg atgtgctcct agggagtggg tacagagctc canacgaaat caatccttac 420  
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<210> 3135  
 <211> 473  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-010-Q1-E1-B9  
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 ttcccaagta tganattggg gagaattcga taccgaaaga cgctgcgtat cagatcataa 180  
 aacatgagct gatgcttgat ggtnacccaa ggcttancct agcttctttt gtgactacat 240  
 ggatggaacc agactgtgac anactcatca tggactcnat caataatgaa ctactttgat 300  
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 actgttcaat gcgccactcg angaatctga gacggcgggt ggagtaggga cagttgggtc 420  
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<210> 3136  
 <211> 468  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-010-Q1-E1-C1  
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 taagagataa gttcatcctg acaacatgga gaccaagaat gagaattctg atgtttcacg 180  
 ggcagaggag tttaaaagtc aggccaacga agctttttaa ggtcacaaat actccagtgc 240  
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tcgtgcattt gctcacacaa aactggagga atatggcagt gcaatacang atgcatcgaa 360  
ggccattgaa gttgattcaa gatactctaa nggctaatac aaggcttggg gctgcgtacc 420  
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<210> 3137  
<211> 427  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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tatcatacat tccatgattg aaacacagga ttcacctgtg cttgctcaat tgggttggcc 360  
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ttacttg 427

<210> 3138  
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<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-010-Q1-E1-C3  
<400> 3138

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tgaagatggg tcagtggact ttaatggaaa cccaccattg aaggagaaaa caggaaactg 180  
gaaagcttgt ccttttattc ttggtaatga atgttgtgag aggctagctt actatggtat 240  
tgctgggaat ttaatcactt acctcaccac taagcttcac caaggaaatg tttctgctgc 300

tacaaacggt accacatggc aagggacttg ttatctcact cctctcattg gagctgttct 360  
 ggctgatgct tactggggac gttactggac catcgcttgt ttctccggga tttatttcat 420  
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 ttggtg 486

<210> 3139  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 3139

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 tcaacaacaa ccacattacc tgaagacatg ttccaaacca aacctggatc tagggagtgt 180  
 ggtgtacctc ttaggctatg ccaatcagaa tgaactcaag atcggcgagg gaaagttagt 240  
 tgtagctacc gacaatctca tcaaactctc aactgatgaa atgatttgga gtcttgnatc 300  
 tgctggattt gatgttcaag ggaatcttgc attcatgatt tgtgatccga ggaaactatc 360  
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<210> 3140  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-010-Q1-E1-C6

<400> 3140

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 gttttcacta gcaaagagat caaatcacat ggctctggtg cagtgttttc agctggcatt 180  
 ctctcttcga aatctctcat tgaatcaaga tggaggtatg cagcaactctc gtanaagatc 240

tatcttcact tttgcatcat atatgctcat tttcggtgcc aagatttcca atattctgga 300  
gctagttcca attatcaaag aatctttaac tgcccaaattg gttgatcctt atcttgtgct 360  
ggaaggagat atcagactgc gtgctgtatg ttctggattt ccacaggaag aaacgtatgg 420  
atntgacaa 429

<210> 3141  
<211> 444  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-010-Q1-E1-C7  
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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn aactcggatc tacaaaaaac 180  
catgtcggaa actaacacaa ccgatgccaa gactgttcca gcagaagcag agaagaagaa 240  
agaacagagt ttaccattct ttaaactctt ttctttcgct gataaatttg attatctctt 300  
aatgttcggt gggtctcttg gtgccattgt tcatggntct tccatgcctg tctcctttta 360  
ctcnttggtc aaatggttaa tggatttggg aaaaaccaa tggatttaca tcaaatgggt 420  
catgaagtcn caagatatcc ccaa 444

<210> 3142  
<211> 439  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnngcaagct aacatggaat cattaaaagg aggtctacga agtatgacgt 240

gaagttgaag acggcgataa tattgaagat caacaattca gtagatggnn nnnnnnnnnn 300  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360  
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 aaaaaaaaaa aaaaagggc 439

<210> 3143  
 <211> 588  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-010-Q1-E1-D1  
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 aaaaccaaaa ggggccggga tttcaaaca caatttgga ncctgggttg ggtcaaattg 180  
 ggaagcctca atcaccaaga actncgggct taaattgcta aatttttaaat ccgaanggan 240  
 gggagggaaa ggggtgcatt agagtgggcc aagaaggggc acataagaac agcttgaaga 300  
 caaagctcat agaagcaca atcgagagcc aaaaggttca gctgaagcat gtccttgagc 360  
 ataagatcta ggccacaaca tattccaaaa ctaccagtcc taggccattc tactaatctt 420  
 tgtggctgag cagcaagaac tggatTTTTG attccgttct cctgctattg ccattgtcgc 480  
 atgatctaac gctgggtcaa accaatcaac gtgggtatat tttcgttanc taaaagcaaa 540  
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<210> 3144  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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ctgccatcgt ctcgctccaa gtcacatcc ttctccgtct cctgcacat cgccaaggac 180  
 ncgcctgttc tcatggccgc cggatntgac cgggccctgt ggcaacgaan cgattcgttc 240  
 ggtcgtttgg gaagtttggg gngaaagtat gtacctgaaa acccttatgc acgctccaat 300  
 ctgagcttga tccgctttct atgctcttgc nacggacnat gatttcnana naganttggc 360  
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<210> 3145  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-010-Q1-E1-D12  
 <400> 3145

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 tattgtttca tgtatatggg cgtcatcaaa gttcttcgaa gaacatttta gtagattcat 180  
 ctccatttcc ttctgatttc ctctttggta cagcttcttc cgcttaccag tatgaagggtg 240  
 cgttcttgac tgatgggaaa aagtttgaac aattgggatg tctttacgca taaaatcctg 300  
 ggaaaatact tgacaagaac aatgcagata gagctgtggg accaatataa tccgattttg 360  
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 cccatataa 429

<210> 3146  
 <211> 454  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-010-Q1-E1-B5  
 <400> 3146

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gaatcgtgta gttccgatta cgagactctg gtgggttcaag attttgttct tcagtttgaa 180  
 ccaaagggtga aagagattgt tgaagaatac ggcgatgttg atttattgga tgttgaagat 240  
 tcagatgctt acttggagta cttgagaaat gagcttcagt ctgtggaggc tgaaagtgcc 300  
 aaagtttctg aagaaattga acgtctttct cagtctcatg cccaagattc tagtangttg 360  
 caaagggatc ttgaaggctt tttactgtca ctgggattct atgtcatctc aggatgtgga 420  
 gaagtcaaaa gagaatcaac catctagcaa gctc 454

<210> 3147  
 <211> 446  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-009-Q1-E1-H1  
 <400> 3147

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 gaggaaactc agattggtgg atttacctga gaattgtgta gcgttgatta tgacacggct 180  
 tgatccacct gagatttgcc ggcttgctcg tctcaacagg atgttccgtc gcgcttcctc 240  
 agctgatttc atttgggaat caaagttgcc tgcgaattat cgtgttattg cacacaaggt 300  
 gttcgatgaa attactctga cgaaattaat aaagaaagat ttttatgcaa agcttaacca 360  
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<210> 3148  
 <211> 534  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-009-Q1-E1-H10  
 <400> 3148

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ttggtctcc ttctcacact cagactcttc ttccacagtt tcttgctcta acggcacaga 180  
 cttccatcaa ctaaccacag tttttcggtta cgtctccggt ttcaactctt cctgggtctc 240  
 ctcaaactgc tccgccggtta tcaactacgt cgttcttccg tcaagaaaac taaacgggaa 300  
 cgttttcttg ggaaccctaa tacgtaatct caanggcgcc ttaagtgggt ccttggtattc 360  
 tcctccaaaa naaactcctc ctccgaaagg ggttcnccn ttcccaaant tgggggtccc 420  
 gggncccaaa ggccaaagggt ccctgggtcc ncccgggtta aatccnctc cncngggnaa 480  
 acggggnttt ggggtggggn tccccaaaaa ngaagtggga tttccaagtt ttaa 534

<210> 3149  
 <211> 414  
 <212> DNA  
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 <223> Clone ID: LIB22-009-Q1-E1-H11  
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 tagccaccta gataagtttt tagtcgccga cgatgaccaa gaaaccatcc gtcaaagccg 180  
 taaaggagat gcacggcgtg ccgtttggac ggtggagccc gtcgtcgata aacctaattc 240  
 gataagggtta aagagcagcc acggcacgta cttaacggcg agcaacaaac cgttattgtt 300  
 aggtatgacc ggtgagaaag tgactcaaac ggcgtcgttt aacaagctga tggattggca 360  
 aacgcantgg gaaccggacc aaaatggttt caggtgaacc taaatccttg ggnc 414

<210> 3150  
 <211> 471  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-009-Q1-E1-H12  
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cggcgaatcg ttaggctcga gaagaatcac caaattccaa ggggagagag actgaatttt 180  
 cttttgattc acgtaacaac aacgctcaga gactatgtcg tcggaggtga aacagctgat 240  
 cgctcgttgc gaaggcaccg ccgctttggg tccttattgg caaacatcgt ccccgactat 300  
 cccgagaaaa tcacaaggcc ttccggtgga attgagttta attggaaaaa ggaacccggg 360  
 tccaacggnt gaacnaacan cggggatntt caaatcccaa gggtaaaaat gtgcctgcct 420  
 gggnaacaacg gantggctgg acnaaggang ttgataattt cctgcaatgg n 471

<210> 3151  
 <211> 521  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-009-Q1-E1-H4  
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 agggggaacg ttgaaagggc naaagtttgc tccanggttt taccggttcg cnanatgggg 180  
 tgattcaaca atcgaagaag aaatccacga angggagaaa ggtgaatggg nacaaaccgt 240  
 gaacgttggg gattcagccg tcgaaagttg tgataacgaa gcttcgtctt gataaagata 300  
 ggaaatcgct tttggagagg aaggctaang gacgtgctgc tgctgataag gagaagggtg 360  
 ctaagtttac gtctgagga tggtatgcag aacgttgatt aagttaagaa aggaagaaga 420  
 aaatccttcn tgaaaagggg tttaaccttt ttagaagttt atccttcaa tccgcctttt 480  
 taanttttcc aagttttggg taatttttgg naatgtttgt c 521

<210> 3152  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-009-Q1-E1-H6  
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gatgtacgct cggccttata ctgcagttaa ttatgctcac cctccaccaa tgccgcctcc 180  
tcaactcgat tcttatactc atatgttcag cgatgagaat ccaggtagtt gtagtattat 240  
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tttttttttt tggggatgtc cttatctttt ttactttgga ggattggnaa caaaatgtgc 360  
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ggngg 425

<210> 3153  
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<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-010-Q1-E1-A1

<400> 3153

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gaacaaaggg gttanaattc tttgcctttc ggtccgtgtc tttgctgggt aaggttctac 180  
tgggtatgaa ggtcagaatc atgggtccca actatatccc tggtgagaag aaggatctgt 240  
acactaagag tgttcagagg actgtcattt ggatgggtaa gaggcaagag acagtggagg 300  
atgtcccttg tggtaacact gttctatggt tgggctggat nagttcatca ccaagaatgc 360  
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gttgtctggt gcgtcatgta agtnctcgac tccaa 455

<210> 3154  
<211> 445  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 3154

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catgtccgtt gtttctcca acgataacca ccacgtgacc gccgggtccg gccgccgtca 180  
gggtattttc gacgctgaag ccaccttgat gttcgagtca tggatgggtca nacatgggaa 240  
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nccgtttaan cacnaancgg ganngctgag aacctcantt accgggttgg tttgaatcgg 360  
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caaggaacca cttcttcaga acaan 445

<210> 3155  
<211> 397  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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ttgtttccat tgttgcagct ccttcaaaaa ctcttgtctc tattgctttc acagctaaga 180  
attctcgatt ccacgttgtt cgttttcgat tttgacgaaa ttgggttctt ctagatttgg 240  
ttatggaccg tanagctcaa tcagatctct ctttaggatt cggtagctcc cacgctttac 300  
ctctacctca ncctcctaga atcccaatcg ctgatgactc aatcacgctt canattgatt 360  
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<210> 3156  
<211> 483  
<212> DNA  
<213> Arabidopsis thaliana  
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<223> Clone ID: LIB22-010-Q1-E1-A2  
<400> 3156

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cacggctata ctgaaacctt cagagttggc ctccctgaca tgtttggagc tcgctgatat 180  
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 aacaactgga agcagcatta tgacttccgc tgccaaattg gtgaaaccag tttccttgga 360  
 gcttgggggt aaaagcccta tcattgtctt tgatgatgtc gatattgata aagctgtgga 420  
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<210> 3157  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 ttgttaacct tgatcctgct gcggagatct tcaactatcc tgtggctatg gatatcagag 180  
 aacttatttc tttggaagat gtgatggagg atctaaagct tggtcctaata ggtgccctta 240  
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<210> 3158  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-010-Q1-E1-B1  
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 ccgcgattct tgggattcta tcgattcttc atttatatat aaaagcgtga aatgangatt 180  
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 gaagctcccc tcgggttaca gcattgaaga cgttcgtcca aacgggtggga atcaagaaat 300  
 tcaaattcttc tgtctactca aactgctcca agaagccatc ctgaagtacc aacgtgcacc 360  
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<210> 3159  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 gaaggtgaag ttcaaggntt taatggtggt ggcntactta atcgttttca atctcctgtg 360  
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<210> 3160  
 <211> 427  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 <223> Clone ID: LIB22-010-Q1-E1-B12  
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aactcgccat ggaanttaag ggtaccgana ctaatgatga ntctcant tggtaaggc 360  
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aaaccng 427

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<211> 401  
<212> DNA  
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ggaagcattt ctccggttat caaaagctcc ttaaactata atcagaagga gctttccaga 180  
cttggagtcg ccaaggatct cggatagatg gtcggattca tcgccgttac tctctctgag 240  
atcttgccct tttgggccgc tcttcttggt ggccgcttc agaacctcat cggttacgga 300  
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nnnnnnnnnn nnnnnnnnnn ncagccaaat tgggtcaaaa agaaaaccaa ataggcnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
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 <212> DNA  
 <213> Arabidopsis thaliana  
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 ccacaagtga aagtaaaaga gggggaagaa agattgataa atgaagaagt ggtgaatggt 180  
 acattaagaa gaagtttgag attctactca atacttcaat cacaagatgg tttttggcct 240  
 ggtgattatg gtggcccttt gtttctcttg cctgctctgg tgatcggtt atatgtgacg 300  
 gaagttttgg atggaacttt aactgcgcaa catcaaactg aagattcgtc gttatctcta 360  
 taaccatcag aacaaggatg gaggatgggg actacacgta naagggaata gcaccatggt 420  
 ttgtcaatgc tcna 434

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 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 attaaatcta aacctaaatc attagaannn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnggcat ggctggctct gatctaggca 240

caacttctcg ctacgtccac aacgtcgatg gtggcggcgg cggacagttn nnnnnnnnnn 300  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360  
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<210> 3165  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-008-Q1-E1-G3  
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 cagaatactg agagatcatg aagccgatgg atgggaacgc tccgatttcc caatcatctg 180  
 cgaatcttgt ctcggtgaca acccctacgt gcgaatgacc aaagcgaatt atgataagga 240  
 atgcaagata tgtacacgac ctttcacggt gtttaggtgg cgacctggcc gggatgctag 300  
 atacaagaaa accgaaattt gtcagacttg ctgcaagttg aaaaatgttt gtcaagtctg 360  
 tcttctggat cttgagtatg gtcttcaggt tcaagtaaga gacacagcac tcaacattag 420  
 tactcatgac tctatcccta aaagtgatgt caacaagaga gtatttgctg aanaacatga 480  
 caggaaggct 490

<210> 3166  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 cttcaatctt ccataagatt ggagctttcg aggaggagct taaggcagtg ctaccgaaag 180  
 aagtggaagc agcaagagca gcctacgata acggaacatc ggctatcccg aacaggatca 240

aggaatgtag gtcgtatcca ttgtatagat tcgtgagggg agagcttgga acagagcttt 300  
 tgaccggaga gaaagtgacg tcgcctggag aagagttcga caaggttttc acggcgattt 360  
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 ntccaatatg 430

<210> 3167  
 <211> 433  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 aatcatggag aagctaccag gtcacatcatgg acctactaac actggtgttg ttcaccacga 180  
 agaagaaagg gattgacggc gaaagttatg ggcagctgc caatgtcatc catggtgcta 240  
 ctgggtaccg gtggtngttc accanganaa ngaanggaat gacggaaaan gtnatgganc 300  
 anntgccagg ncaccatggt tcacaccaan ctgganccaa cacaacttat ggtacnacna 360  
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<210> 3168  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 <223> Clone ID: LIB22-008-Q1-E1-G8  
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 gttgtaactt ataattccat aatcgatgcc tttggtcggt ctgcaactat ggacagatca 180  
 gccgattata gcaatggtgg atctttgcct ttctcttctt ctgctctgag tgcattgact 240

gaaacagagg gtaatcgggt aatacagtta tttgggcagt taacaactga gagtaacaac 300  
cgaacgacga aagattgtga ggaggggatg caggagctct cctgtatatt ggaagttttc 360  
cgcaaaatgc atcagctgga aattaaacca aatgttgtaa ctttttcagc gattctgaat 420  
gcttgcaatc cgtgtaactc aattgaaaga tgcataatg ccactaaaag gagct 475

<210> 3169  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-008-Q1-E1-G9  
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agttggcaaa tccaatctcc tttccagatt cactaaaaac gagttcaatc tanagtctaa 180  
atccaccatt ggcgtcgaat tcgccactcg taccttaaaa gtcgatggca aagtcgttaa 240  
agctcanatt tgggacactg ctggtcagga gaggtaccgt gccatcacta gtgcatatta 300  
ccgtggagcc gtgggtgcac tcctagtata tgatgtaact cgccgtgcaa catttgagaa 360  
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n 421

<210> 3170  
<211> 433  
<212> DNA  
<213> Arabidopsis thaliana  
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<400> 3170

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taaattggaca gtatttgtgt tttgctgact atttttctag tcatatatag ggtgccccaa 180  
gtgatatagt gaaaactgca tatgactttt gctttgctgc tgtcattcgt atcgtactcc 240

acagtgagga tcatggtgaa ctacagaatg cctggcagct tttatatcta gtggtaaaca 300  
aagagttgct cacatggagt ggtgatnccg gttttactan ganaaatttg cttgatgcga 360  
ctctaagctt ccaaccctga tctgggaagg tcaaaggatn tccncttgc tgggaagtac 420  
attcngcagc tta 433

<210> 3171  
<211> 445  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 3171

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ttccccctgg acaaagggat tcatgtcaaa cgccgtctct tttcgtangg gtacgatgct 180  
ttcaagcaaa aagcataaag ctactcagca agaacattca tttggagaaa gcagctgttc 240  
tattcaatct tgggtgctagc tacagccaga ttggactcgg tcatgaccgc accaccgtcg 300  
atgggcgtcg tcaggcttca catgcgttca tggctgcagc anggggcgtt cgctcacttg 360  
agggataacg agtccattaa ggcgacgatc gggccgagca ctaacgtgga tgtgtcgggt 420  
gaatgtgttg gaatgttgga acngg 445

<210> 3172  
<211> 417  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-008-Q1-E1-H7

<400> 3172

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tgagatcatc gtcatgtatc cgatccaacg ccgaaagtac agagatggaa ttgacaacct 180  
tttggctctc ttgatcggtg gtatcccatc tgctaagcct acagtcttgt ccgttgaaca 240

anggtattgg gtcccaaaag gtngtcccaa gcaanggtgc aannacaanc cttataactg 300  
 cnattganna natggnagga ntggatgtcc tgtgcantga caaanccggg acactaaccc 360  
 tcaacaaatt gantgtggac anaaacttgg tcnaggtttt ctgcaagggt gtggana 417

<210> 3173  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-008-Q1-E1-H9  
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 gcgaagtctt tctgattaat ttgagtttct tggaagcttt tactcgatcn tcatcggtac 180  
 ttagggtttt gtttaaacc agatcttggg ttttgtaaa taatggcgac tccttatect 240  
 ggagcgacgc angtgggttc gtactttgtg gggcagtant atcaagtgtt gcagcancag 300  
 ccagatctta ttcacagtt ttattctgag cctantagag ctattcgtat cgaaggngat 360  
 tcaccganac tgnnaaatcc ttgntgnata ttcanaacat gggttaagtca c 411

<210> 3174  
 <211> 480  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-009-Q1-E1-A2  
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 acgactttct ctgtccagc tggagattcg ccattggctg tagacatggg aagcatggga 180  
 aaaggtcaaa tatggataaa tgggcagagc ctgggacgtc actggcctgc atataaagca 240  
 gttggttctt gcagcgagtg ttcttatacc ggaacattca gagaggacaa gtgcttaaga 300  
 aactgtggag aggtttctca aagatggtac catgtcccaa ggctgtggct aaaaccaagt 360

ggcaatctaa tggttgtccn ttttaaggaat ggggaaggag aacccaaacg ggatcaacgt 420  
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<210> 3175  
 <211> 461  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-008-Q1-E1-F4  
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 cggctgggaa gagccaccgc acgtcgcgtt ggggtgtccgg tgcgcccccg ggcgggccct 180  
 ttgaaaaatc cgggagggac cgagtgccgc tcacgcccgg tcgtactcat aaccgcatca 240  
 ngtctccaag gtgaaacaac ctctggtcga tggaacaatg tangcaaggg aaagtcggca 300  
 aaatggatcc gtaacttcgg gaaaaggatt ggctctgaag ggctgggctc ggggggtcca 360  
 agttccgaac ccgtcggctg tcaagcggac tgctcgaact gcttcgcng cgaaaacggg 420  
 tcgcccgtg ccggccgggg gacggactgg gaacgntctc t 461

<210> 3176  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tcgatgttcc tctctgtta ttgtcttctt catcgtctct tgggtgcgtt gatcagctac 180  
 cgatggatat tctagtccag atactgatga tgatggagcc aaaagatgct gtgaaattgg 240  
 gcttaacgtg caaagcctgg aaatgcgtag ctagtggtaa tcgtctctgg atattttatc 300  
 tccagtgttc tcaagagcca tgggactcca ttttcttcgc tgaaactagt ttgcgttctg 360



gttatcctct ccgaatgatt ccaagtcaat caagganaat tgccnttaa gcacaatt 418

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<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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ccgaccaccg gaacccccac cactggaact ccaaccagtg ggactccaac tagtggcttc 180  
ccaaataccg ggactccaaa cacagggact aacactggga tgccaaattc caacgggatg 240  
ccaacttcat cgtcatcttc ggtgttcccg gggactactc ttggcccgac tgggagcggg 300  
ggactaggcg atccaaatgc tggaganaag ctgtctgttc gaactaacac agtggctctc 360  
ttattaaccg gtgtagcagc aatgcttgtc atatgagggc ttanaantca cacgcggtta 420  
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<210> 3178  
<211> 480  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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gaggatcggg ttctactcga ctactgtccc taatgccgag acaattgttc ggaccactgt 180  
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tgattgcttt gtccaagggt gtgatgggtc ggtgctttta tcgggacctt actctgaaag 300  
aaccgctggc gcaanacgtt aacctccaat ggttttttag ggtccatttg acgaatgcc 360  
aanaagggca agctccgaan ggcaaacaat gtcctnnggt ggnttgteet ccttggttgc 420

cngaaaaatc cttgggcctt aaaccgggct ccnttgaatt ccgggttttc ctctccgta 480

<210> 3179  
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<212> DNA  
<213> Arabidopsis thaliana  
  
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gaaaactcca gcggcttaac ggatcttcca ctggtagttt tctgttcctc acaaggaaat 180  
cgaaaatttg ataaagcgaa agtganaaag gcgtgtgttt tctttgtaaa ggctccaact 240  
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tggggttttt ccttaangtt ctgaaggagg agnaaaggag aaanctttct tggaatttgg 360  
atncaaattt gngctcanan ggngagtffc aagggttttg tttgtgatc cngga 415

<210> 3180  
<211> 465  
<212> DNA  
<213> Arabidopsis thaliana  
  
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cagaagcaga taatgaagct tcagctagag atgcagaaca tgcaaactgt attagtcgca 360  
aaaagaagaa agttaaacca aaaggtgttg tcatggaagc aaaacctcaa ctagtaggaa 420  
tccatgagag agtaagaaac gatattgatg ccccccatc ttcaa 465

<210> 3181  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 ccgtttggag ggttgccaag tttgggtggt cccaaagctt ggttcaaatt tgtgggcaag 360  
 tcaatttaag gtggantaaa gaaatggttt ggcnaagggg cttaangggg aacnaagaat 420  
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 <212> DNA  
 <213> Arabidopsis thaliana  
  
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 cagaacggtg tttgagtcag actgaggttg agaaggaggc gtggaagctg cttcgtggtg 180  
 ccgtggtgaa ctactgtggg ttccctgtgg ggactgtagc ggctaatagat ccaggggata 240  
 cgcagacttt gaactatgat caagtgttta ttcgtgattt tgttccttcg gcgtatgcgt 300  
 ttatgcttga tggagaaggg gagattgtta gaaactttct cttcataca ttgcaattgc 360  
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 tttaa 425

<210> 3183  
 <211> 470  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
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tgctttacaa gcttctatgg gacactattg tgaaagaagg gtttccaacg ggaccttttt  180
tcgactactt ttctttgaat cgcaattatg tcttatccca agatgtcaga gatcacattg  240
ctaattgcagg tatcaaagct cagacacttg aagagatagt taggtactat gaaaacactt  300
ttcagatgct tccgatagca aataatcaac tattactaaa gtacgagttt cagaaggacc  360
aatctataat agctgaaatt agattcaacc atgatcatga atgggtgatg agcaaatata  420
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 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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ccaatcgnag gaccaatcaa agaccgttgg gattactttt acgaccaacg agctgaagag  300
ttcttcaaan cacgaatccg taaatacaac tccacggtgt acagagtcaa catgccancg  360
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<210> 3185  
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 <212> DNA  
 <213> Arabidopsis thaliana  
  
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tgatgtttgg ttaccacatc tatttgtggt ataaggttcg aaccgatcct ttctgcacca 180
ttgttggtac aaattcccgc gcccgctgat cttgggtagc agccatcatg aaggacaacg 240
agaagaagaa catcttagcg gtacaaacac tacgaaacac gataatggga gggacgttaa 300
tggcaaccac ttgcatcctc ctctgcgcgc gtctcgtctc cgtttttaac cagtacttat 360
accatcaaga aancctttaa acgacnccgt atatggagct catggngact tcacngttgc 420
actcaatagc taac 434
  
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<210> 3186  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-008-Q1-E1-E7  
  
 <400> 3186

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acaangtcaa agacatgtct caagccgatt tcggtcgtct cgaantcgag ctgcgccgaag 120
ttgagatgcc tggactcatg gcttgctgta ccgaattcgg accttctcag ccattcaaag 180
gcgcnagaat caccggatct cttcacatga ccatccaaac cgccgtactc atcgaaaccc 240
taactgctct cgggtgtgaa gtcagatggt gttcctgcgc catcttttct actcaggaca 300
ngcngccgca gccatcgctc gtgactccgc cgctgttttc gcctgnaaan gnnagactct 360
tcatgagtagc tggtngtgta ccgagcgtgc tcctagattg gggtaagtg ttggtntcta 420
  
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<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 3187

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at ttgatggat atcgataaga acgatagata tgctaatacgt aataccgtgt tctttgatat 180  
taacttgaga gg ttttagatg ggattcaagg acctgtatat gtcggaactg gatgtgtttt 240  
caacagaaca gcattatacg gttatgaacc tccaataaaa gtaaaacaca agaagccaag 300  
tcttttatct aagctctgtg gtggatcaag aaagaagaat tccaaagcta agaaagagtc 360  
ggacaaaaag aaatcaggca ngcatactga ctcaactgtt cctgtattca accten 416

<210> 3188  
<211> 427  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-008-Q1-E1-F12

<400> 3188

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agactaagta tgcagcttta tctagaggag atggagaggt ttacttgagg tttactcgca 180  
aagcaagacc cgaatcaata tggaatcacg ctgctggctc aatcattgtt tcagaagcag 240  
gagggaaaagt gactgatgca gcagggaatc cattggactt ttcgaaaggg aagtatcttg 300  
attacaagag aggaatcgtc gttacgacgc agaaactgtt gccaaaggctt ttaacnnnnn 360  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnna aagctgcttc tccaaaactt 420  
cactaac 427

<210> 3189  
<211> 433  
<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-008-Q1-E1-C6

<400> 3189

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gcagcagcta caatgcctat gccccgagaa gcgtctaatt acgatgagat ctctatgcaa 180  
cagagcatgc tcttctctga tagtctcaag gatctgaaga atctgagaac acagttgtat 240  
tcagcagctg agtatttcga actatcctac acaaacgatg aacaaaaaca gatagtcgtg 300  
gagacactga aagattatgc aataaaggct ctggtgaata cagttgacca tttggggtct 360  
gttacatata aagtaaata ctttgtagat gaaaaatcat gaattaccag gaaccgaact 420  
gcgaatttct tgc 433

<210> 3190

<211> 437

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-008-Q1-E1-F3

<400> 3190

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cattcttgct gaaactccaa cttcaagtcc cacgaacaaa cccaacaaca gcactacatc 180  
aaaagctcca aaggagctc caaaaccagg nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnncggcat ggatcttagg gtttgctggt ggagccatag gaggaacaat 300  
ctctgggttt gtcttctcgg tggtgttcaa attgattatt caagcaataa gaggatcaga 360  
aaaaccacca agtccttcca tattcagccc attgattaaa gaaagctgaa agatttacct 420  
tccttgggag aatgaag 437

<210> 3191

<211> 437

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-008-Q1-E1-A2

<400> 3191

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gggagtcgac actccgtcgc aacttcatca gttttctcta canagaattc gttcgaagga 120  
aaattcgaac tttcaaagac gacaaggagc ttgagaatgg ccggaggatt tctccggagc 180  
tcaaacgcgc catcgaggag tcgaaattcg ccgtcgttgt tgtctctgta aactacgctg 240  
cgtctccttg gtgtctcgat gagcttgtga agattatgga tttcgaaaac aagggttcca 300  
tcactgtgat gcctatcttc tacggtgtgg atccgtgtca tttgaggagg cagatcggag 360  
atgtcgtga acagtttaag aagcacgang ctagagaaga agatcatgag aaaattgcnt 420  
cgtggagacg aacattg 437

<210> 3192  
<211> 441  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-008-Q1-E1-A5

<400> 3192

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tcctttgttg tgctgctttt cactctcttc tgcgcgacga atttggcctt gttttttgtt 180  
tgtttgcgt atccgacgcg gaggtattga gaaaccgtgg ctttaagacgg aggaagaaga 240  
tggaagctaa cgggattgag aacttgacga atccgaatca ggaaagagag tttataagga 300  
gacatcataa gcatgagctt gtggataatc agtgtagctc ctacgcttgg ttaaacataa 360  
caacgctccc ggtcaaaatg gtggtggcca cttgtgaaga aagatttgnt nagccacaag 420  
aagtataanc cgtttatcag t 441

<210> 3193  
<211> 456  
<212> DNA  
<213> Arabidopsis thaliana



<223> unsure at all n locations  
<223> Clone ID: LIB22-008-Q1-E1-A7

<400> 3193

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atatgcatga tcggcgccgg aggtttcatc ggttcacatc tctgtgaaaa gctcttgacc 180  
gagacgccac ataaggtgct tgcgctcgat gtttacaacg ataagatcaa acacttgctt 240  
gagcctgata ccgttgaatg gagtggtcgg atccagtttc atcgtatcaa tattaagcat 300  
gattcgagac ttgaaggtct tgttaagatg gcggatctga ttataaatct tgctgcgatc 360  
tgtactccag ctgattacaa tacacgtcct cttgatacta tctacagcaa tttcattgat 420  
gcgcctccag ttgtgaaata cggctctgaga acacaa 456

<210> 3194  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-008-Q1-E1-A8

<400> 3194

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acttggtaga ggcgttgaaa caacgtggag gcgtttaatt gatggagaat gtgggattag 180  
aggattgact cttgatgatc tcaagatgaa gtcttttgat gaagagacaa agttatatac 240  
ttttgatcag ctttcttcta aagttgctgc ttttgtgcct tatggattaa accctggtga 300  
atttgatgaa accctttggc taaactccaa nggaattgcc aaatttaanc ggataatgcg 360  
gtanttgtctg ccgatnaanc tttgnaanat gcanagtggg taaaaactga agaa 414

<210> 3195  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-008-Q1-E1-A9

<400> 3195

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cgctacaaac gtttcttctt caacctcggt cagagattat cctcccttct tttctcatct 120  
tacaaggaag ttgggcagtt aaagctgctg ggatcaccag ttttgcataa agtggagtggt 180  
gaagaatctt ttatgtctga acaggtctct ctctttcaat catctatccg gcttttagga 240  
gagtactgtc ctatatctag gaaaaagtcc actcataaag ttggtgggtt gcgttttgag 300  
gaggacatca cgagctgtat tggatttcag tttatgcaac tgagtgatta tcaactgcctc 360  
ttctgacatc ccttgtttgt ttacgtttgt tgaatcaaga tggctttgca aaaca 415

<210> 3196

<211> 422

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-008-Q1-E1-B10

<400> 3196

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cagttagagc gtcactgttt ggctcccgat ggatctcttg ttaccaaadc tgtctactcc 180  
gatctccaac tcgcgagaga ggagatgtct cgggagagac ttcggtatct ggaagctatg 240  
gctatttatt gtgaagctgt agctatgggt gaagaatadc agcaagctat ttcagtagct 300  
aaccatgggg gaattcgtga tgttcaaggt ctataccctc aacttggtct gaagaattct 360  
cctcangttt atgagactct anagcatang ttggtgggtt ccgaaggggg tcaaaaactg 420  
aa 422

<210> 3197

<211> 470

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-008-Q1-E1-B2

<400> 3197

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cgagttgata aacttcctta ctctattagg attctgcttg aatctgcgat tcgtaattgt 180  
gataactttc aagttactaa ggaagatggt gagaagatta ttgactggga aaagacatct 240  
cctaaacaag tagagattcc ttttaaacca gctcgtgttc ttcttcagga ctttacggga 300  
gtcccagctg ttgttgacct tgcttgatg cgtgatgca tgaataagct gggaagtgat 360  
tccaacaaaa tcaatccctt ggttcccggt ggatcttgat attgatcact cggttcaagt 420  
agatgtagct cgatnagaga atgcagtgc agcaaactg gagcttgaat 470

<210> 3198

<211> 437

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-008-Q1-E1-B3

<400> 3198

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tgagagtctc cttgggtgca ttttcagag ctggagccct cgccgtcgaa aaccctcttt 180  
accggaaaag gatcatcggg caaaagataa cttgtcttcc aagtcatcaa caaccgttac 240  
aaaccctaaa atcctcccaa gaaaatccac cgatacttct tctcaaccaa agaaatctga 300  
ctcccagaaa cccaacaaa agccaaaacc aagatgagaa tcaccgcaa aatcatcggg 360  
atccgccaag aaaatcatct gattccgcaa agaaaatcga ttcgtcaggc tcatcaagaa 420  
cagagagcaa ngagatt 437

<210> 3199

<211> 448

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-008-Q1-E1-B6

<400> 3199

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aggccaagaa cgggtggcgtt ttccctcgtc acgatgctca gccaaaggtc gacgctccgg 180  
ttgagaagcc tgccaagttt tatccggcgg aagacgtcaa gaagccgctt gttaacagac 240  
gcaagcctaa gcctaccaag ctaaaagcca gcatcactcc aggaactgtg ttgatcattc 300  
ttgctggtag attcaanggg taagaaaatt gtccttcctc aagcaacttt ccttctggtt 360  
tgctccttg ttacaaggac caattcaaga attaatgggt gtttcaattg anaacttggt 420  
aaccaaanc taatgtnaat tggaacct 448

<210> 3200

<211> 426

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-008-Q1-E1-B7

<400> 3200

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atggaaccaa taacgttttt cactacagct actgggatta ttgtgggtta tgcttatttc 180  
ttgatgactt ctagagatcc aacgtatcaa gatttcatga aaaggttgtt tctttccagg 240  
cagaggaagt tgcttaagag tcataagttt gatgctgaga ggtttaaaga actgggagaa 300  
aagtggaaga taacgtcttg ctcttcttct tcgtgccacg ctaatgcac gattcggaat 360  
cgtgttggtg ttgatcttga tttggaggat tccttgacag gtcacacag agattgattg 420  
gntcta 426

<210> 3201

<211> 433

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-008-Q1-E1-C1

<400> 3201

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acatcgtcgc cgacaacact taggagtaat tggatccaag canaaatgtc gataaacatg 180

aaaacattta ctcaagctct agctagaacg gctgctgtga ttgagaagac ggttcatacc 240

acagtacagg aagttacggg accaaangct cttcaggatt acgagctact tgatcagatn 300

ggttcgctg gtcctggctn agcttggag ctatacgag ctaangcgcg ttgattccac 360

gaaggcacag caataaccga aggtctgtgt aatggatgcc tgataagcgt gctttgtcgg 420

aaggcncctg taa 433

<210> 3202

<211> 414

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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cggttcaacg gattgtcatt gagctttttg ctgatgttgt cccaagaca gcggaaaact 180

tccgtgccct ctgcacaggg gaggggggag ttggaaagtc cactgggaag cctctacatt 240

tcaaaggatc atctttccat cgggttatca aaggattcat ggctcagggt ggtgattttt 300

ccaatgggaa tggcactggt ggggagagca tctatggtgg gaagtttcag atgagaactt 360

tagattggac catgatggaa ctggantcct tcaatggcaa attgtgggcc aaaa 414

<210> 3203

<211> 447

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-008-Q1-E1-C3

<400> 3203

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 gagataacga agtcggcagg attctctcat gcttcaagct gaatccgttt gagcatctta 180  
 acctctcttt cgattcttcc acggatgatg ttaaaaggna gtacagaaag atttctttga 240  
 tggttcatcc tgataaatgc aaacatccac aagcacaaga ggnnttcngg gcaatgggaa 300  
 aagcccnaca actggtggca aacgaacnag naagngaata aaatccttaa ccaaattcaa 360  
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 cttnaaaaat aaaatccctt ggtggna 447

<210> 3204  
 <211> 432  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tgagattgaa agtgcaagag cagctgtaca aagagttgaa gaagccctgc gagaacatga 180  
 acagatgtct cgtgcctctg ggaaacanga catggaagat ctaatgaagg aagttcaaga 240  
 agctangcgg attaaattgc tgcacaaacc aagcagggtg atggatatgg aatatgagct 300  
 tcgagcacta agaaatcanc ttgcagagaa atcaaancat tttcttcaac taaaaannaa 360  
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<210> 3205  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 cacgcagtna agattaccgg agtccgatat aaattcgggtt aatctgntga gggagacaga 180  
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 aagttttact agtgcncaga cagagagatt gaacgcnagg caagcgagcc atgaggacaa 300  
 caatctatct gtttttggtg cttctcctcc atcctctggt gtttcaataa tgnccgangaa 360  
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<210> 3206  
 <211> 448  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-D8  
 <400> 3206

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 agctcttgaa gcagcccanc aagggattgt tcttctcaaa aactctgctc nctctcttcc 120  
 actctcncce agacgccacc gcaccgtcac cgtgattggt ccaaactccg acgtcactga 180  
 gactatgata ggcaactatg cagggaaagc atgcgcctat angtcgccgt tgcaagggat 240  
 ttcaagatac gcnaggacac ttcaccaanc tggctgtgcc ggcgtggctt gcaaagggaa 300  
 ccaaggattt ggtgcancgg atgcagcggc gcgtaagcc gacgcgacng ttcttgtgat 360  
 gggantaaat cagtcgatan angcagagac acgatatcga accgggggctt ctcttaccgg 420  
 gttatcaaca agatctaatag acccgtgt 448

<210> 3207  
 <211> 453  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-E1  
 <400> 3207

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atctcagatc ccgatcccggt ctctttatct tccgccggcg actttcttcat tttttctcttc 120  
 tacctaccac ctcttaataca ttctctctcc ccccgagat cttagcgaatc gaattcgaat 180  
 ccttaagtag tagtggaatc atggcgctaa gcatgcgaaa agcgatcgga gttgttaagg 240  
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 cgatcgtgaa agctacaaag ccacgacgat gatnaatcta gtgacaaagt atatcccgcg 360  
 agattcttaa cttaacttca ctctccccgt gggctacgtt cagcctgggt gtcacctccg 420  
 gttcaacgcc gtcttaaaga angacgcgtg act 453

<210> 3208  
 <211> 427  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 3208

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 gacatctcga tacttttggga aaccccgatt tgttgatgac tcttgaatct atgggacggt 180  
 gaatcccaaa gaatggttcc attttaagtt tgttttgtat tgttggtgga ggctggatga 240  
 ttttgagagc acttgtactt gagctttgtt ctcatatctt gaattacaca gtggaatana 300  
 aaagatgaca actttgtatt aagtaagatg atgaacacnt gtagctcttc ctgctagata 360  
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<210> 3209  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 nnnnnnnnnn nnnaaagttt cgattaagaa gatagtgggt taggtttacg gttttgtaat 300  
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<210> 3210  
 <211> 431  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 3210

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 tctcccatcc tcgtttccag ggcgttgaga ccggttctct aggagatttc aaattggatt 180  
 gggattcacc ggaaagccaa gatattgttc tgaagagaca gtttgattca ggcgagaagg 240  
 ttgtggtctc tgctttattg caaccagaac ctatagaact agaagatgat ttagtgtttc 300  
 ctagggaagc tcatgccaaa gtttgatca aaaagcctgg tctcagctct atcttgcagt 360  
 ttcattgccg ggtttacgaa tcaggatctg ggatcttctc anttcgacat cganaacgcc 420  
 tactttatcc c 431

<210> 3211  
 <211> 446  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-E2  
 <400> 3211

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tctaagcttc ttcttctactg tnaaaacctc agatcgcaaa tatgcacgca cgggtactcg 120  
 ttctgagcga ttcgttgaag cgtgaatctg gaagtaaggt tcatcatggt aatatccaag 180  
 cttccaaggc tgttgctgat atcattcgta caacattggg tcttcgttct atgttgaaga 240  
 tgcttcttga tgctgggtgga gggattgttg ttactaatga tgggaatgct attcttcgtg 300  
 agctagatgt cgctcatcct gcagctaagt caatgattga gttgagccgt acgcaagatg 360  
 aagaanttgg tgatgggaca acgtctgtta ttgttccaac tgggtgaaat gctcacgttg 420  
 cagaancttt cntgagaaga attaca 446

<210> 3212  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-E3  
 <400> 3212

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 tccatgatct ctacctcac tccatgtctc aacttcatca ccggaagcag cggcggttcc 120  
 gtcactccca ccgcccggctg ctgcgactcc ttgaagacgt tgaccaacac tggcatgggc 180  
 tgtgcttgcc tcctctcac tgctaacgtc ccgctgccta ctggcttcat caatcggact 240  
 ctggcgcttg ctctacctcg agcctgcaaa atgggcggtg tacctattca atgtcaagct 300  
 ggggggactc ctctaccaac tccaagtcag gttccatttt tgattgctcc accacctcaa 360  
 gtgtctgctt tagcccggga acctcaangg cggcngggac aacaccaaca caggcactgc 420  
 ancggatact cccgcggatg g 441

<210> 3213  
 <211> 450  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-E6  
 <400> 3213

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aggctgctcc tactcccatc gataccaagg cctctaccaa acgccgaacc ggctccatcc 120  
 cctgcggcaa gcgtaccgat tttggctact ccaaagactt ccacgatcac tacaccatcg 180  
 gcaagttgct cggccatggt caattcggct acacctacgt cgccatccac agacccaatg 240  
 gagatcgct cgccgtcaaa agactcgata agtctaagat ggttcttctt attgctgttg 300  
 aggatgtcaa gcgtgagggt cagattctta ttgctctctc tggccacgag aatgttggtc 360  
 agtttcacaa tgcctttgan gatgacgatt acgtctatat tgttatggag ttgtgccaag 420  
 gaggcgaatt gctgggatag gatattatcc 450

<210> 3214  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-E7  
 <400> 3214

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 natggatgct gctatcttta cttccgtana cgtttgcaat ataccaaaga cgaagaangc 120  
 tttcttcaac ccgaatccgc ctgctctatc ttcgtcttct tgttggctct gcaattcgca 180  
 ngccaagcaa atcatanaac tgagaatcag ggaaggctcg aatcaggggc ttcttcgtgt 240  
 acatgctctg tttaacaacg aggaggcatc angtgaaagt gaagatanga atggggttg 300  
 tttgctaccg gcggatattt tctctttgcc tcaggagaag tttggaagta atgtaagtgg 360  
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<210> 3215  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-E8  
 <400> 3215

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aagaagctct ttttttgctt acattgaagt taaaaaatca tcacttggtt tgtttttgaa 180  
gaaacacaca taaagtttgt ctttttactt ctcaaatttg gttgttttca ctcaatttca 240  
atcttgcttt ctgattcaga ttctgggttt tcttcagaat tcccagagaa gttgttgga 300  
ttgaattttt cacttttttg ttcataaaag ttctagtcnt tttagatgaa catggacaag 360  
gaaacagagc aaaccctaaa ttacttacct ttgggtcaga gcgatccttt ggcaatggca 420  
atgaangaac aattggagat tc 442

<210> 3216  
<211> 428  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-006-Q1-E1-E9

<400> 3216

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caacatctgg tcttgatgca agagctgctg ccattgttat gcgtactgtt aggaatactg 120  
ttgatacagg aagaactgtt gtttgtacaa ttcaccaacc tagcatcgac attttcgaat 180  
ccttcgatga gttgctgttg atgaaacgag gaggacaagt tatatatgct ggaacactag 240  
gacatcactc acaaaaactc gttgaatact ttgaggctat tgaaggggtt ccaaagatca 300  
aggacggata caatcctgcy acgtggatgc ttgacgtcac tactccttca atggagtcac 360  
aaatgaacgt ggactttgct caaatattcg ttaactcctc tgtaaatccg agaaatcagg 420  
aactcatc 428

<210> 3217  
<211> 455  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-006-Q1-E1-F3

<400> 3217

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gattatgaag tacgttttgg tgacaggagg agtgggtgagt ggtcctggca aacgtgtcac 180  
 ngctagtagc attggacttc tccttcaagc atgtgggtctt cgtgtcactt ccattncaat 240  
 tgatccttat cttaacactg atgcnggnac aatgtctccg tttgagcatg gntaagtatt 300  
 tgtcntggat gaangtggag aagtggattt gnnccctngga aactaatgaa cgatttttta 360  
 gacagtacat ttgacccgtn acancaanat aactaccggg aaagatatac cagtcaagtt 420  
 attgacaaag gatnggaagg gggactactc ggaac 455

<210> 3218  
 <211> 450  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-F7

<400> 3218  
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 cttctcatct ttcttcttcg ttttctatct tcttcttctt ttattctttg attcttttga 180  
 aatgaatcat ctttacaaaa acccatttcg catttatgaa attagtttcc atttctgcgc 240  
 gagtctactc ttgtgtttct tactcttctc tgctcaagct gttgcagggtg gtggagggtg 300  
 tgggtcactct tgggatggaa tcgtgggtgac tcaggcgaac tatcangcac tccaatgcta 360  
 tcaancacga nctcattgac ttcaccggag ttctcaaaaa gctgggaaca actctgcctc 420  
 ntctcaagtt tgctcaggct gggctggaat 450

<210> 3219  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-F8

<400> 3219  
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ctcccactgg agaagtgctt ttgcgagagc agatgtgggt gtctttccac agtttaccct 180  
gccgatgttg catagcgttc ttgatgatgg gaacttcgtt gtgattccag aatctgtagt 240  
tgatgtttgg gctgcggaag gctacagtga aaccataca aaacaaaatc taagggaaat 300  
taacgaatth ggtgaggatg acgtgatcat ctgggtgctt gggagctcct tcttttatga 360  
tgagtttctt gggataatgc cgtggcaatg cacatgttgg ggaccacttt taacacgata 420  
tgggangaga aaagattcaa g 441

<210> 3220  
<211> 433  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-006-Q1-E1-D7

<400> 3220

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ggggaccacn agatgcttcc gacacttcn ccaccagcgt cgcggcggcg aatctcctcc 120  
caaacgtccc cttcgcttcc ttctcacgat ccgaaaaact cggacgcgtt gctgattgga 180  
ctcgagctct ctcaaatcca tcagctcgtc ctacaccgg atccaaatca gatccatcag 240  
cgatcttcga tttctcagct tttgcagtag atgaaggatt tggcttaaca aactcangtg 300  
gaaacgcnga ctaagacgcc gctttccgat tantcgacgg aaaaacaccg gccgcgtcct 360  
aaattccgga ctaaattgga naatcaatca atgnncataa ccgaanatca gcttcctcaa 420  
cgttnttaat gaa 433

<210> 3221  
<211> 455  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-006-Q1-E1-C1

<400> 3221

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gaaagtggct aaactccttt acgccaaagg ctccatatt accttcgtca acaccgtcta 180  
caaccacaac cgtctcctcc ggtcccgtgg gcctaacgcc gttgacgggc ttccttcttt 240  
ccggtttgag tccatccctg acggtctacc cgagactgac gtggacgtca ctcaggacat 300  
ccctactctt tgcgagtcca caatgaagca ctgtctcgct ccattcaagg agcntctccg 360  
gcaaattaaa cgcaagggga tgatgttcct ccctggngan ctgtaaccgt atccgacngg 420  
ttgtaagaac ctcacacttg atgccgccgg aggaa 455

<210> 3222  
<211> 482  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-006-Q1-E1-C10

<400> 3222  
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aatggcatcg gaatcgaaaa gctacgctag gagagatcgt cttcttgaga ttgaggccac 180  
tgttcgaaaag tggatgggaag acgaggatgt attcagagcc gaatcttggt agaattcttc 240  
aaaaccagga gaaaagtttt tctcaacctt ccctttcccg tatatgaatg gttatctaca 300  
cattgggcat gccttttcat tgtccaaggt tgattttgct tctgcttacc ataggctaag 360  
angagctaata gtgcttctcc aatttgggtt tcaattgtac tggatgcca attaagggtc 420  
tctgcggata accttcgtcg tgagattgaa cagtttgggt aacctcctgt gttactgctg 480  
aa 482

<210> 3223  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-006-Q1-E1-C11

<400> 3223  
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gatttcccag gtcattgctct cagagaaatt ctctgtcttt gattcaatgc gatataaaaag 180  
 agagatcttt cggagagtct atgacgatca cgaatcgtgg attgagtttt aagacgaatg 240  
 tgtttgagca agctcgttct gtgactggag actgtttctta tgatgaaact tcagctaaag 300  
 cacgttctca tgttggttga gaagataaga ttggtgtctg ctttgaatta aggtggcctg 360  
 aaacccttaa cgatgttcaa ccttcctggt aaaacctctt tgctgatccg gatataaaa 419

<210> 3224  
 <211> 473  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-C12  
 <400> 3224

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 ctgtggaaga agagaatatt aagatcacta tggaggattt tctccacgct atctatgaag 180  
 ttcaacctgc atttgagacc tccacagatg acctagagcg ctgcagactc aatgggatgg 240  
 tagattgtgg tcatcggcat aatcacattt acaaaagagc tatgcttcta gtcagagcaag 300  
 ttaaagttag tactagaagt cctctagtca cttgccttct ggagggggccc agtgggaagtg 360  
 ggaaaactgc tttagcagca acaattgggt atccgatagt gacttcccaa tatgttaaag 420  
 atagttctgc ggnaactatg attggtcttt ctgagagcac aaaatgtgct cac 473

<210> 3225  
 <211> 453  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-C4  
 <400> 3225

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 ttgtatctac ttcacttgct gtagagatat ggtatcaaga tcttattcaa acctcttga 120  
 tcttgcttct ggtaacttcc attcggtttc tcgagaaaag aanaggtttc caagagtagc 180



aactgtcact ggtgtcttat ctgagctaga tgatgataac aacagcaaca gtgtctgctc 240  
 tgatgtcctt tcttccgtca cacaagatcg aatcatcatc gttggaaacc agcttcctat 300  
 taaatcacat cggaactctg ctggtaaatt gagttttagt tgggacaatg actcgcttcn 360  
 cttgcagctt aaaagatggg atgctgaag atatgggaag tttgtctaca ttgggttgcc 420  
 ttaanggaac agattgatac agttgagcaa gat 453

<210> 3226  
 <211> 450  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-C7

<400> 3226

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 gatgccttcg tcaacganca aaactccaag tactgtggan ccagccgcta cgganatct 180  
 tctttcttcg acanggtcat gctcnaaaac gcttccgact acnatgttgt aaacttcctc 240  
 tacgccacan ctctgttttc tctccccgaa ggtttgcttc tccaatcaca atcanchaga 300  
 ttcttgggac cgtgagtcta actggtttgg ctacattgct gtencgtctg aatgaanngt 360  
 ctaaagcttt aggacgccgt gagatctata tagctttgan aagaacgagc aggaactaag 420  
 agttggtnaa atgttttggg gtgctangcc 450

<210> 3227  
 <211> 443  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-C8

<400> 3227

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 gtcacgactt ttgtttcccg ttgtttgtct gcagacatag aatcggacaa gcaagcactg 180

cttgagtttg catctcntgt tcctcacagt cgcaaactca actggaactc cactattcca 240  
atctgtgcct cttggactgg tatcacctgc nccaagaaca acgcccgtgt aaccgcactc 300  
cgtttgcctg gatctggact ttatggacct ttaccanaga aaacatttga gaagcttgat 360  
gccctcanga tcattagcct tagatccaac cacttcaagg gaacattcca tctgtcatcc 420  
ttcacttcct ttaanccgat gac 443

<210> 3228  
<211> 451  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-006-Q1-E1-D1  
<400> 3228

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agaagaagaa gaagaaagat aaattaaaag ggtggttctg agttttaagg attattgttt 120  
gannnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnntt atctgattgc 180  
tctaataaat atgagaagct cgttgttcgg atgaacatgc ccagggtcgt aattgacaat 240  
ggagtttgcc ctaattcaac tgtcgtcaag attgatagtg caagaagccc aggaatattg 300  
cttgaatctg tacaacttct cactgatatg aatctccgga tnaaaaaagc ttacatttcc 360  
tctgatggaa aatggaatat gggatgtttt tcatgtgagc gatctaacgg agacaaatta 420  
accgacgaga acctaattccc gttacattga a 451

<210> 3229  
<211> 481  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-006-Q1-E1-D10  
<400> 3229

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aggtcagcat ctaagtttgc ttccgtttat ggtggccgag tccgatctat ctccgccgtt 180

gcgaaccgcg cctctctagc tcgcaaccca tcttcaattc gtccattcgt ctctcgcgcc 240  
 ttaaattact cgacggctat tgatcgaatt agctccgagc aaacgcttat ccgagttatt 300  
 gactccgaaa tcaactctgc tttgcaatcc gataatatcg attcggatga agagatgact 360  
 ccaggaagct ttccttttag aattgaagac aaacctggaa atcagaatgt tacattgact 420  
 agagactaca atgggggaac atattaaagt tgttgtaagc atgcctaagt cctgggttcag 480  
 a 481

<210> 3230  
 <211> 418  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-D11  
 <400> 3230

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 catccgagtg cctagcagca tacatgagcg aagaagaagt gctagagggg attatatacc 180  
 ctccaatatc aangatacga gacataacan aaagaatanc agctgcggtg attaaggaag 240  
 cgattgagga ggatttggtt gaaggatata gagaaatgga cgctcgagag atccaaaagc 300  
 tggatgagga ngggctgatg gagtatgtgg aaaacaacat gtggaatcca gagtaccoga 360  
 ctttgggtcta caaggatgac taagtttggg ttcccaaaat gaataagtct actttctc 418

<210> 3231  
 <211> 438  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-D12  
 <400> 3231

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 ctgcttttat ttctaattgt ggtgctcgga attttcgtct acaagcactt gaggcattga 180

tgaaaactaa cattaagatt gattcttatg gtggttgta tcgaaaccgg gatgggaaag 240  
 ttgacaaggt tgaagctctt aagcgataca aattcagttt ggcttttgag aatactaacg 300  
 angaagatta tgtcaccgaa gaaattcctt caatncctta agttgcctgg gtcccggttc 360  
 ccgttggtta tttggggcct ccaaaattat tagaaagaan tttccgctg gcttccggac 420  
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<210> 3232  
 <211> 440  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-D2  
 <400> 3232

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 aaaatcaaga aagtgaatca aaggggtcat attgctacac cgtatccatc accatgttgt 180  
 aagaaagaat gggctggctc aacctgtcca gtatgcttgg agtctccaca caatgcgggt 240  
 cttctctgtgt gttcgtctta tcacaaagga tgccgtcctt acatgtgtgc tacaagcagc 300  
 cgttttgcca actgccttga tcaatacagg aaatcctacg gtaacgaaaa ctcangacaa 360  
 cccgagcttt tgtgtccact gtgtagaagt caagtgaaan gctggactgt tgtgaaagat 420  
 gcccggatgc atttaactcc 440

<210> 3233  
 <211> 449  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-D5  
 <400> 3233

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 catcagctgt gcctcaaacc gagaactata aaagggtggct tcgtgtctcc atatacgtaa 180

tctttgtcct cttttgccag ccactagcta caattctggg tagattgtac tatnaaaatg 240  
gaggaaatag cacatatgtg gtaacacttc ttcaactcat tggcttcctt gtaacnggttc 300  
tgttccgctt cttttctcga atcangcatc ccagatcaac agatacaant ttcaagtcag 360  
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<210> 3234  
<211> 451  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-006-Q1-E1-D6

<400> 3234

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ttcaagatat tcaacacaaa caacctatgg gtttaactga aggccatcaa aaagcttgtg 180  
gaagctgatg cacttaaaat ggagatcatt ccaaaccctaa aggaagttga tggagtcaaa 240  
gttcttcaac tggaaactgc agccggtgct gcgataaggt tctttgacaa cgctatcggg 300  
gttaatgtac ctgctcagc gttcttgcca gtgaaggcaa gttcagactt gctgctcgtc 360  
cagctctgatc tctacacctt agttgatggc tttgtcactc gaaaacaaaag ctagaactaa 420  
nccctcgaaa cccgtcaatt gaantgggaa c 451

<210> 3235  
<211> 448  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-006-Q1-E1-B7

<400> 3235

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ctgagaggga aagtgagaaa gcaaagtctg aagagatcat tggattttca agctcagcag 120  
tctctattct aaaagatgct gagctttcag tcaactgagat tgacgaaact tctctaattcc 180

acatggatgt tgatcaaagt ttcttgcaaa ttccacaatc tgttaaggct gcaatctttg 240  
 aaagttttgt gaggcagaac atatctgaag cggaagttga tatcaacca tgtattaagc 300  
 agtttggtg gagtaattat gggtttccaa ccaaaagcag cacaggcttt gtatatgctg 360  
 atggctcact ancactattc aataaactgg taanttgttg tgctcaagaa ngtgggaacg 420  
 ctttgtttac ctgccnggta caaaatgg 448

<210> 3236  
 <211> 449  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-005-Q1-E1-H2

<400> 3236

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 aggaaaccgg tggccaagac cagagacttt agctctattg agaatacgtt cagagatgga 180  
 taaagctttt cgtgactcta ctctcaaagc tcccttatgg gaagaaattt ccaggaaaat 240  
 gatggagctt gggtacaaga gaagttcaaa gaaatgcaag gagaagttcg agaacgtgta 300  
 caagtaccac aaacgtacca aagaagtcgt accgggaaat ccgaanggca aaacttaccg 360  
 gtttttccaa agaatttaga ancntttcga gactctcaag ttcctaacia ccctgaancc 420  
 tgaattccaa acccgcgaaa tccttctgc 449

<210> 3237  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-005-Q1-E1-H3

<400> 3237

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 aatcgtgcaa cccccctgct ggtggtaacg gtgacacctca attcgtcggg ttgcaaggcc 120  
 aaaactacca attccacggg atggctgatg aggtgttctc cttggtctct acccctgagt 180

tgcagatgaa ctctttgttc aaattcatcg cctctggtaa ctgcgagtac aacaacaccg 240  
 tctgctgggc tcacctgggt acctatttgg gtcaaatcgc catccagtat ggtaacgaga 300  
 agatcttgtt gcantctgggt tctcactcgg anggtgccaa ccgttctgggt caaacgacaa 360  
 aggcaantgg cccctaacgn ccaatgtnc aaaaatnncaa tgcctccggc aaatcgaacc 420  
 ttgttcangt cccttggttg g 441

<210> 3238  
 <211> 439  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-005-Q1-E1-H4  
 <400> 3238

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 aacgataata ctgaatctga gagtttaagt gttgttgagg aaccgaagaa cgataaagaa 120  
 ttgagtcttc gagctttgaa tcaaaatgggt gatccattag ggcggagaga tttagggagg 180  
 aacgtagtga agtggattan tcaggcgatg aaagcgatgg cttcggattt tgcaactgcg 240  
 gaggttcagg gggagtttcc ggagttgagg cagaacgtcg gatctggttt gacgtttgtg 300  
 attcaagctc aaccgtatct caatgctatt cccatgccat taaggttctg aaatcaattt 360  
 gtttgaaagg cttgtacca ttaacccaac cntggtccat taatttccaa aagaaagttg 420  
 ccttgatggt cntcaaag 439

<210> 3239  
 <211> 435  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-005-Q1-E1-H5  
 <400> 3239

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 ctctccttga ggctcttgac cagatcaacg agcccaagan gccgtcanac aagccccttc 120  
 gtctcccact tcaggatgtc tacaagattg gtggtattgg aacggtgcc a ntgggacgtg 180

ttgagactgg tatgatcaan cctgntatgg ttgtgacctt tgctcccaca ggattgncca 240  
 ctgangtcaa gtctgtttan atgcaccacg antctcttct tnatgcactt ccangtgaca 300  
 acgttggggt caatgttaan aatgttgctg tcaangatct taagacaagg tacntcgcat 360  
 ccaactccaa ggatgaccct gccaanngtg ctgctaactt caactcccaa gtcattcatca 420  
 tgaaccaacc tggtc 435

<210> 3240  
 <211> 479  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-005-Q1-E1-H6  
 <400> 3240

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 aaattgaaac aaacaaaacc aaaagacgtt accttttttc cattgattcc tcaattctct 180  
 aaacaaatga gttaatcttc catggctgcc atgttgatgc agccatggcc accgtttctt 240  
 cctcatctaa cctagttttt cttaaccta atcctctttt tccctaata atccttttct 300  
 caatccgatt ctctcgaaa catcgaaaca tttttcccaa atgacacaat caccctcca 360  
 agttcaatct ccggttctat cgccgccgca aaaccatcat cttcgtcac ggattcaaga 420  
 cagaggaaat atcctgaggg ctgtgctata acaagcaagc aagcacttta cttgtagca 479

<210> 3241  
 <211> 474  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-005-Q1-E1-H8  
 <400> 3241

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 aggtttaaga aaattgncaa gaggaacgat aatactgaat ctgagagttt aagtgttggt 120  
 gaggaaccga agaacgataa agaattgagt cttcgagctt tgaatcaaaa tggatgacca 180



ttagggcgga gagatttagg gaggaacgta gtgaagtgga ttaagtcagg cgatgaaagc 240  
gatggcttcg gatTTTgcaa ctgcggaggt tcagggggag ttttcggagt tgaggcanaa 300  
cgtcggatct ggTTtgacgt ttgtgattca agctcaaccg tatctcaatg ctaattncca 360  
atgccattan ggTtctgaaa gtcanttggt ttggaaggcn tgtactcant aancctacct 420  
tgttcgattc atttccaaga agaagaagtt gcgttgatgt tcctcaaagn acct 474

<210> 3242  
<211> 429  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-006-Q1-E1-A1  
<400> 3242

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ctcctactct gcccatgata ttctcagagc gtctttcatt gagaagtttc tgggtctccag 120  
aatccttttt gtgcacttaa gattccttct tgggtgttgg agaaagttaa gtgaacatcc 180  
cagtgcagtg acttcaacat gttctcaact tctcttatca catttgattc gtcacgaact 240  
attagtttac ctcttggtcc tactattcta tccacttctg ccattactgg gacaaagant 300  
gcanctttca aaacaaaaca aaacaagaga cntaatgggt gatgaaacgt tancaaaagg 360  
ggtggataat aagagttacg cctaaaacct ggtcncaact ttgagaaaag atgatntgca 420  
tgtaagaga 429

<210> 3243  
<211> 434  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-006-Q1-E1-A10  
<400> 3243

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gatccgaaac acgatttcgg aggaagcttc gattctacct attttcagat ctgaaatagt 120  
tgtgtttgag aagcgggatt ggtgatcgga gctggaattt ggttggtaat cggaggtcag 180

agagaagtca acggatatgc cggaggaaga atcgatagat atcaaattca ggttgtacga 240  
 tggctccgat atcgggcctt ttcggtattc tgcggcttct actgttgact ttttgaagca 300  
 gagggtcgtc tctgattggc ccaaaaggca aaacaagttg ttncaaaagg ggataaacga 360  
 aattgaanct gataaacccc gggtaagaat cttgggagaac aacaaagact gtttgggcat 420  
 tgттаagaca ccat 434

<210> 3244  
 <211> 427  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-A12

<400> 3244

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 ttgggcccac caggtgaata aagcggaggt cagaagatgg gttctggttt aaatgacaca 180  
 ttatctcgga actacaatgg tttggagcta tgggagataa tagtgattgt tctctccgcg 240  
 atattcggtg tagtttttagc tatatcgcta tggcttactt tcagaagaaa aacctctaga 300  
 tcttcttcta atctaattccc tgttagtcgc cagattcctc ctaagtgttc ctgaagagat 360  
 taaagagatt agagtcgacg aggtttcttc aagcaatggg tggggaatgg ataccctcta 420  
 ntagtga 427

<210> 3245  
 <211> 511  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-A3

<400> 3245

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 gaaatgctac tgtgacgact ctgtttgctt ctcttccttt tcttcctcgg caacaacaac 120  
 acccttcctc tcctcactcc ctatccgcca aaatctcttc ttcttccttt ttcttatttt 180

cctttcaata tctgatagct gcaaaacaga acccaccatg tctgggtctgt ataattataa 240  
 taactttctca ctttctagag ccgcttctcc tcagattaga accccttcct ccgatgttga 300  
 cagtcaatac atatctcaat tgttagcaag agcatcaaaa gcttggacct ttcatgcaaa 360  
 gtcttaccba tttgtagccg actcctaaat caagaaattt tccgggattc accgggaatg 420  
 atgcccacaaac caaagggatt taacggattt tggataaggt tacgggaatc gaagtcacct 480  
 agtccaaatg ggcttcaaca aaatcctaata g 511

<210> 3246  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-A9  
 <400> 3246

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 tcacttttct ccgtccaatt ttgcagcttt tgaagatcaa gaggtgaaca ttcggagtga 180  
 tgaatcggcc aaagggttcag cgtcgtgttg gaaagtatga ggttggaaag acgcttggac 240  
 aaggcacttt tgcgaaagtt cgggtgtgctg ttaatactga gacaggagaa cgcgtggctc 300  
 tcaaaatact tgataaggag aaaggcttta agcataagat ggctgaacaa gataaggaga 360  
 gaaatttgta ctatgaagct gataaaccat ccaaaatgta atgcggctgt atgaagtttt 420  
 ggcna 425

<210> 3247  
 <211> 452  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-006-Q1-E1-B1  
 <400> 3247

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 gatccgagtt tgggagattc aagctccctg aaaanagccc tttantctcg cttaccaact 120

ttgctccagc atggcaggat ntgcaccaga aggcacacag tttgatgcac gtcagtttga 180  
ccagaaactc aatgaantac ttgagggaca ngatgagttc ttcacatcct atgatgangt 240  
tcatganagc tttgatgcc a tgggtcttca ngagaanctt ctcaggggta nttatgctta 300  
tggttttgan aanccttccg ctagtcagca acagaggaat cgtccccttc tgtaaggggt 360  
cctgatgtga atcaacaggc tcaagtctgg tactgggaan anaacanctt tctgccctgg 420  
tgtcntgcaa caactgggac ctctcccgt a tc 452

<210> 3248  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-006-Q1-E1-B11

<400> 3248  
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agatcaaagt ttcttcttga agaaagaaag aaacacaaaa gctatggcat attcaactaa 120  
actttatctt cctcttaaaa caccatgttt tgttccaaag acagtaagag caaagacttt 180  
gatgcttcaa cagagtcaag ttcatgttaa agtcaagaaa gccacagttt cacagcctca 240  
gccgatcaga tactccacca agaacattgt ttttgaagat ccgatacaag ggatcatctg 300  
ttacacagat gataatggag aggttatatg tgaaggatac gatgaaggtc ctcgttggtc 360  
cacacagagt ccaatggtag cttcttactc aagagaggtg gagaatcctg atctttctgca 420  
aaga 424

<210> 3249  
<211> 454  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-006-Q1-E1-B4

<400> 3249  
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aacttctcta ctcagtgacc atgaaaacga cgaatccgcc gccaccataa ccgccgccgt 120

ctctgtccca atctcacctc tgttaactcc ggaagacaca caaaccgtag aaaagttcca 180  
 ttcaatcatc aaagaccact atcgcaaaaa ccctacaagc cccaacgacg ccattctaan 240  
 ccctagctta actctccatg ctctctccct cgattttctcc caaattgaaa cttcccaagt 300  
 ctctccctcc gtcgtccgat gcgtgataga gaagtgcggc agtgtccgcc acggaatccc 360  
 tcttcaacaa tctctagctt tcttcaattg ggcaacttca cgaagacgga ttacgaacaa 420  
 caaatcacct catccgttac aacgaaatga ttga 454

<210> 3250  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-005-Q1-E1-H12

<400> 3250

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 agaggatgct atggacaatg ttgttctcag atttggacat gtggggaagc tcatgaatgg 180  
 catacgaaat gttgagtatc tggagttgtc tgctgatact ctcgaggtgc tttctctatg 240  
 ctgtgagtca atgccagtgt tcaaaaacct caaatcgta gctattaaaa gtactgaagg 300  
 tgaagatgg caagcaatgc cagttcttct aaggaattgt ccacatttag agtttctact 360  
 cattgaggga ctcttgacc atgtcacaag ataaatgcgg ggatgcttgt gactgcttnc 420

<210> 3251  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-004-Q1-E1-D8

<400> 3251

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 catattcctt ggcattcttt ctggtaccga agctgagtct ctggagagtt tctagatctt 180

cttcaattct gcaattcaga gcgaagattt attagtgatt gattattcac tctggagctc 240  
gagttctgga tccgtgtggc tggaggggaat gttctgttaa gctgattggt taggcttggt 300  
ggatcagtat agaaattgtc agattgagaa agacaacatt gaagaacggt atagctgagt 360  
gccctgcatg tcattcaaaa ntgggtctcac ctgggtaaca aaactaattt caaggcttat 420  
g 421

<210> 3252  
<211> 468  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-E11  
<400> 3252

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aatcaaactt atgcaagcta agactggagc tagaattcag gttattcctt tacatttgcc 120  
ccctggagac ccaacgccag aacggacttt gcagattgat gggataaccg aacagattga 180  
acatgctaaa caattagtta atgaaatcat cagtggcgag aaccgtatga gaaactcagc 240  
aatgggtgga ggctatccac aacaagggtg ttatcaagcc cgcccaccct caagctgggc 300  
accacctggt ggtccgccag cacaacctgg ttatggtggt tacatgcaac caggagcata 360  
tccaggtcca cctcagtatg gtcaatcacc ttacggaagt taccctcaac aaacttcagc 420  
tggttactat gatcagtcct ctgtgccacc atcccaacaa agcgcgca 468

<210> 3253  
<211> 422  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-004-Q1-E1-E3  
<400> 3253

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ctcatcaaca gtctctccg gaagtagtag ccaccacgag ccaagcacca tggaggttga 180  
gctagattcg tttcaaagac aagtcgctga gaaattcatc gatctcaacg cttcttcaaa 240

cgaccttctc tctctcgaat ggatcggaaa gcttcttgat tctttcctct gttgtcaaga 300  
agagtttcga gctatcgtat tcaaccaccg atctcagatc tctaaatctc cgatggaccg 360  
tttgatttca gattacttcg aacggagcat caaaagctct agatgtctgt aacgccatcc 420  
gc 422

<210> 3254  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-E6  
<400> 3254

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ccaaagactt atcctgtgtg tacaataacc agcacgcaa ctaagtttgt gcaactgtatt 120  
gtatgggcaa aagacctgct ctttgcaaag ttgtttggcg acaagaatca agataatgat 180  
cttaatgtgc gatccaacaa ttctgcaagc tcatccaaag aacagaaga tgtatttgaa 240  
cgttcagaag atgaagatat tgagcagtat ggtangaaga tatatgatca tgtgtttggt 300  
tctaacattg aagcggcttt gtccaatgaa gagacatgga aaaatcgcag acgaccaagg 360  
cctatatata gtaaggatgt cttgcctgaa agtctgactc aacaaaatgg gancactc 418

<210> 3255  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-F1  
<400> 3255

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aaccgccgtg attggatctg gtgttctatc gcttgctgg gctataggtc aactcggttg 120  
gatncatgt cctacantga tggtgttgtt ctcttttctc acttactact cttccangct 180  
tcttancgan tgctacagaa ccggagatcc tgtctctggg aagagaaact atacttacat 240  
ggacgctgtc nnatcaatcc tacgtggctt taggttcaaa atttgtgggc tgattcaagt 300

atttgaatct gtttggatc acngtcgggt acacaatcgc aacatctaca agtatgatgg 360  
cgatcaagan gtccaactgt ttccactaga gcgaggaggaa aaacccgtgt cacatgtcc 419

<210> 3256  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-F12  
  
<400> 3256

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aaaatgagca acgataagga cagtttcaat gtcagcgatc tcacttctgc tcttaaagat 180  
gaggatcgag ctggtcttgt caacgctctt aagaacaagc tccagaatct agctggacaa 240  
cattctgatg tgctcgagaa tctgactcct aaaattagaa ggcgtgttga ggttttgcgg 300  
gagattcagg gcaaactga tgaaatagag acaaaattcc gcgaggagag agctgctctt 360  
gaagccaagt atcaaaagtt atatcaagcc tttgtataac aaagcgttat g 411

<210> 3257  
<211> 432  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-F2  
  
<400> 3257

cacgcgfcg atcgtggagt aaaggaagag actttggtgt tgccctcgat ttctagtgat 60  
gaattcgatg agtttaggtc gattgttcga tgtcctaatag ctcctttgaa ctattcttca 120  
tctgttgatt tgcaattccg tggagatttg gtgaagaaga agatgaagaa acagagccgt 180  
cgtgttcata attgggaaaa ggttggttat gaggcggtga ttgacggcga cacggtgggt 240  
gtgtttgtta aaggattgac tcgaagacct cacaaggaat cagatccttc ttactataag 300  
tgtcaatttg agattgagaa ttcggaggag aaagaggtga ctcaagctat tgctgctgcg 360  
caagaagttg tgaggtgtgg tttgcctgag agtttgaagc taaatccaga gatgatgttt 420



cnagtgagtg ta

432

<210> 3258  
<211> 470  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-F7  
  
<400> 3258

atttctagcn gacggtacgg acacaaattc gcgggtcgac ccacgcgtcc ncccacgcgt 60  
ccgcggacgc gtgggtttca gacaattttg gttctttttc ttttgtatit atacattctt 120  
aatcttctac aaaacaaaag aagaaagaca catttcgtta gtagaaatgg cgggaaacgg 180  
aaacgaaagt accggtggag acttcagttt ctcggctgcg gcggcccggtg atgcgcttcc 240  
gaggatcacg actgagaagg gcggcaaadc tccagggccg gcagacgtct gccaggatga 300  
catcgcaccg cgggtcaact ttcagaccat cgacgagctt cacagtctcc agaagaaacg 360  
atctgcccct accactcctc ttagagatgg cagcgccagc ggagtcagcg gaactagtgg 420  
tccgactact cctgtctcca accagacatg cctcaatccg tcattgaacn 470

<210> 3259  
<211> 460  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-G11  
  
<400> 3259

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aaatgctgat tgcaaaatca agatctgtga tttaggactt gctcgtgtct cctttactga 120  
ttccccctct gctgtgtttt ggactgacta cgttgctaca agatggtacc gtgcgccaga 180  
gctctgtggt tccttctatt ctaactacac gccggcgatt gacatgtgga gtgttggtg 240  
catatttgca nagatgctaa ctggaaaacc tttgtttcct ggcaaaaacg ttgtgcacca 300  
gctagaactc gtgactgata tgcttgaac tccgtcgccg ataactctat ccaggattcg 360  
gaatgagaan gctagaaagt atttgggaaa catgaagcga aaggatctgt acctttcacc 420

anaaattccc antatcatct gtggcgcnga agttacttca

460

<210> 3260

<211> 424

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-004-Q1-E1-G2

<400> 3260

gatcacgctc tcctcaaaat cacancacca acataacaaa aaaaagggtt tgatcaaaga 60

gatcactgtt aaaccctcac aanatttctt caggactant antctgcgat cgatcgtcgt 120

tatgataagt ctctaaagaa gattgatgat tctggattac attatcatgg gaggagcttg 180

ttcaaggaag agagatcanc aagttganga tatttttaaac agangtgtct ctgganaata 240

tancannagt tcaagttcga aatgggttagc tacntcgctc tctaggtctg gctccgatgt 300

taaacggaag aatggagaat gcccgctcgt tatgganctc tgtgtccgca agatacanga 360

ggacattgat agatatacca agttctctga cctacctaga gatacagtca gcagattttg 420

anga 424

<210> 3261

<211> 423

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-004-Q1-E1-G3

<400> 3261

gcccacgctc ccgatccata tctctctccc tatatctact tatatataac aaataaacac 60

ataagttgac atatatacta tatacaagta tattaattat acatatatgg ctgaccctaa 120

caatcctatc actgaaccta aagctataat ccaatcttct acttcatcgt cagttactat 180

tgtgccagtt cccacgtgcy gtgacagcct ctctgactct gccacgtgtg aaaacccttg 240

tccacttgan nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300

nnnnnnnnnn nnnnnnnnnn nnnnnntaat ggccactgac accgacatct ctgcgccgaa 360

aaagaatccg gtttatcggg gaattcggtg tcngagtgga aaatgggtgt ctgaaatccg 420

aga

423

<210> 3262  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-004-Q1-E1-G8

<400> 3262

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tgttggtacg tcaccgattg tgcttgagtt gatgaggagg caaaatgttg aagatgtttg 120  
taaagactct gtggatttgg atactaatgt tagtggaagc agggtgacta aacatagaag 180  
gagaggggagt tggttaaaga gtattaagaa tgttgctagt agtgtgactg ggtataaaga 240  
gcgacggagc accgatgata gggattcacc gtctgagaga ggtggtcaga ggttttagctc 300  
tgcaactgat gatagtcgag atatgtcttt tcatgaccct gagagagtta aggttaggca 360  
gtatgggaag tcgtgtaaag agcttactgc acttttcaag aatcaagaaa atcaagccca 420  
taaa 424

<210> 3263  
<211> 425  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-H1

<400> 3263

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ctcgtctctc cagcctccga aactccaaaa ggtctccatt atctctcaaa tctcgatcaa 120  
aacatcgcca tcattgtcaa aacattctac tacttcaaat caaactcaag atccaacgaa 180  
gaatcctatg aagtcacaa gaagtcactc tccgagggtc tcgttcacta ctatcctgcc 240  
gcagggagac tcacgatcag tcttgaagga aagatcgctg tggattgcac cggagaagga 300  
gttgtagtgg tggaagctga ggccaattgt gggatagaga agataaagaa ggctatatcg 360  
gagattgatc aaccagagac tcttgaaaag ttggnnttacg aagttcccggtg tgctcggaat 420

aatct

425

<210> 3264  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-D7  
  
<400> 3264

caaacaaaaa aaatctccac cgtctnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60  
nnnnnnnacg caccaactgt tgcggctcaa agagatctcg atcgggatcc acaagacgga 120  
gatagataga gagagagtga gagctaacgg aaatgggatc tcagctactt gagtgttgct 180  
tccgtttcgt cttctactgt cactcccaca gctccaactg ttttccttga ttgtttttct 240  
tttatctcgg cgttttactc ggaagcttac aacacactct ctcagggatt tgaaatcctc 300  
acgttttcagc acattctttg tggttcccat ctattctcta gccagttcgg agttgcctga 360  
agaaatcaaa tgggttcgag atacgcctct caccagctca acaatgggct tttgt 415

<210> 3265  
<211> 420  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-B7  
  
<400> 3265

tatctcacia taaagacaan nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60  
nnnnnnnnna acaccaattc aagaaagaag gaagcttaag aagagtctat catcaatcaa 120  
tggagtttca tcttgaacat cctctctcac attcttctact ccacaataac ttcaacgacg 180  
acacagacta tgaaacttta ccacactctc tcttcctcgt cgagtttcaa cacatgcctt 240  
cttctcatta ctccatagc ctcaagtcct ctgcttttct tctctctaata cgaaaccaag 300  
ccatttcttc aatcactcag tattcaagaa aattcgacga cccatctctg acgtatcttg 360  
ctgtgaatta tctagacagg ttcttgtcta gcgaagatat gccgcaagtc aaagncttgg 420

<210> 3266

<211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-004-Q1-E1-B8  
  
 <400> 3266  
  
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 ttctgctgct atttgttttg tttctttctt acctgacatt ttggactcaa aagctgaagg 120  
 aaggaacaag tatctagaga tgttattatc agttgcagac aagtttaaga aagaccctta 180  
 cggctttgtg tgggtggctg ctgggaagca acctgatttg gagaagcgtg ttggtgttgg 240  
 aggatatggt tatccagcaa tggtagcctt aaacgcaaag aaaggagctt atgctccact 300  
 taaaagcggg tttgagggtta aacacctcaa agatttcgtt aaggaagctg ccaaaggang 360  
 aaaaaggaaa ttgcctatag accgaactaa gggagatagt gaagacagaa gcttgggatg 420  
 gt 422

<210> 3267  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-004-Q1-E1-B9  
  
 <400> 3267  
  
 gatttcgaaa ccctagtcga tttcgagatc caaccaactc tgctccttat ctacagcttgt 60  
 tgaatttgcg aagtatggga gacgctagag acaacgaagc ctacgaggag gagctcttgg 120  
 actatgaaga agaagacgag aagggtcccag attctggaaa caaagttaac ggtgaagccg 180  
 tgaaaaaagg gtacgtggga atacacagtt ctggattcag agacttcctt ttaaaaccgg 240  
 agcttctcag agctattgtt gactctggat ttgaacatcc atctgaagtg caacatgaat 300  
 gtatccctca agctatcttg ggcattggatg tcatctgcca agcaaagtct ggtatgggga 360  
 agactgctgt gtttgtcctg tctactctac aacagattga accatctcct ggg 413

<210> 3268  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-C11

<400> 3268

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gttttcacag gaacgtcgat gaaatctcgg tatcttgtgc acgtacacat gtcggactca 120  
ggttttaccg tgaagtagaa aacataaagg ggcgttgttt ttgttgccgt caaggcttga 180  
cttttagtaa aatcacatta agaagagacg tcggagggaa aaacctccag ctacagaacg 240  
gtgtaatcgt gtaagtggga atacattgcc atgagaacgt ctttctcttc agacgtgta 300  
tataaagcgc atgttgctgt gtttatgtcg atttttttca agtaaaatta taagtcaaag 360  
aattcaatta ttcactgtat tgtctanctt tccaagccga aaagtccaat a 411

<210> 3269  
<211> 408  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-C2

<400> 3269

gcaactatct ctatctcctt catcgggcga cttcgtcttc ttcttcgttc gctgtcagat 60  
ttttttttac caaattaaca atttttgagt ctccgttgcc tctctcagtt gaagcgtctt 120  
ccttctctct atcgaatgat ggaggccaaa ccaaaaagga ggattgttac agagaatgga 180  
gatacagggtg aagatttagt tcttgcaaca ttgattggaa acggtgatga ttaggtcct 240  
ctcgtaggc atgctttcga aatggggagg cctgagcctc tcgttcatca gctcaaaaat 300  
gtggcgagga agaaggaagc tgaaattgag gatctatgca agactcacta tgaagaattt 360  
attgttgacg ttgatgagct tcgtggtgtg ttagttgacg ctgaanag 408

<210> 3270  
<211> 425  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-004-Q1-E1-C3

<400> 3270

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 tgttctcttt cctctacggc ttttctccgg ttatctccga cggctccgat caccgttaca 120  
 aggtcggtga tgatgttctt ctttacgcta acaaagtcgg accgtttcat aatcccagtg 180  
 aaacatatcg atactttgat cttccgttct gttcatcagc tcctgttaag gagaagaagg 240  
 aggtcttagg ggaagttctt aatggagatc gattagtcag tgcaccttac aaacttgagt 300  
 ttttgggtga gaagaactct gaagttgcat gtagaaagag gttgagtaga gaagacgttg 360  
 ctaagtttcg tgatgtgatt gcgaaagatt aatactttca gatgtattaa gatgacttgc 420  
 caatt 425

<210> 3271  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-004-Q1-E1-C5

<400> 3271

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 atgtgaagaa tgcaaagagt gcatatctcc aaagagcaac tgggtgcacaa aatatacaaa 120  
 cgattattta tcaaacacaa gacgatatgg aatgacttca agattcaagg actctcgttg 180  
 agaagatatt caccatttca tctttgtctc aagttttact gaatataccg ttgtagatat 240  
 cgcacatctc gtcaaaatat ctctgaaat tcccgttgat atagcggcct tgctcagctg 300  
 cagtgttgcc acaggacttg gagctgcgtg gaaagtggct gacgtanagg aaggttcac 360  
 tgctggttatc tttggccttg gtgctgttgg actaacgggt gcanaaggag tcag 414

<210> 3272  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-004-Q1-E1-C6

<400> 3272

gccccacgcgt ccggtgatca caacgtaat tatgtccggt aaaacgttga ntatgttggg 60

agctgcgaga accatcgacg cggntaatct cacttgetta cattcactcg atgtatcaac 120  
 ggtcggagac ngtcgacgtt agagaacttt cgagagttta tggttacgca gtgaccatga 180  
 gaatgttggtt tggaangana catgtcacga tgagaaaaca tgttttcgga tgacgggaga 240  
 ctngganaag ccnacaaaca tcatcttgag gtgattttca nactcgana ctgtttgcc 300  
 tgttttagtc nctgganta cgtggacnca aggttaggtg gttggtatat tgatggtgna 360  
 gaggagagag cgatagtga tgttaatctt gttcgnagtt acaacaatcc cataattacg 420  
 aag 423

<210> 3273  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-004-Q1-E1-C7

<400> 3273

gccctcgcaa ggccttataa ggaaaggctc gtcaccttat tggagaagcg gtccatgggc 60  
 gggaacaagg ttactggga taccagaaat ggatgcatcg tatgtgaatc cattgggaat 120  
 ggtccaagat gaagtcaacg gcacaggagt ttctgctttt tgtgttctga gaaatttcaa 180  
 tttgtcatac atcaagctaa cgccagaagg atcattgagg attacacgga ataatggaac 240  
 cgactggatc aagcactttg agggctcgct aacctcgtgt gatctatatg gtagatgtgg 300  
 accttttggc ttgtgtgtga gatccggtac tccaatgtgc caatgcttaa aagggttcga 360  
 accaaaatca gatgaagagt ggagaagtgg gaattggagt cntggatg 408

<210> 3274  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-004-Q1-E1-C8

<400> 3274

gcccacgcgt ccggtccttt tgagttcttt gggcttcctc ccaaatttct ccacgagctc 60  
 gacccctttc gtatcttcct tctcattttt ttgccaaatt tattegatcc gtctttcact 120



atgtatccga tggattctga ttaccatcgc cgtggctctgg tggcaaacga tcgttcacca 180  
gctcagtttg ttaggctgga taaaccgaga gccgtagacg atctctatat aggcaagaga 240  
gaaaagatgc gtaggtggtt gtgctgtgct tgccacgttg aagaacctta ccattcttct 300  
gaaaatgaac acctcagaag ccctaagcac cacaatgatt ttgggcatca cactagaaaa 360  
ccacaggcgg ctgtgaagcc tgatgctttg aaggagcctc catctantga tg 412

<210> 3275  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-D1

<400> 3275

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aaaaagtccg attctttgcc ggtgtttgac gatcctggtc gagatggtga tgatcttctc 120  
ttcaaagatg tgtttagtgg accaccacca ccaaagtacg gatcttcttc tgggtgattca 180  
cgttctccat ctgctcctgc ttttgactat gatgctatgt tcaaggaacc caaatccaaa 240  
tcagngtcgt ctatgccggt ttatgacaag cctgtgtatg atgatgagga tgtgtttgag 300  
tctattcctg agtcaaaaat cccttccact tcttctcaat cagctagggt tgagaatgtt 360  
ttctcttcta tctcatcttc tctacgaag cacangaaac aagaacaatt ctccctttca 420  
a 421

<210> 3276  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-D2

<400> 3276

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aatgggtgag actgttcaaa gtacgtcacg caacagctca catgttcaag atagaccatt 120  
tctctttact cagaaagcat ggaatcgaaa aggtcgagtc ctctgttttc gatctcgctg 180

gtcacaaatg gaaactctct gtgcacccaa atggncatac aaatgctaag gggacacatt 240  
atgtctccct ctacttaatg aatcaagctc cggatatga tacgcttaca tatgagcttc 300  
ttgccgtcag tcaacttgag ccaaaatggc aactcacgg aagagatgaa tacgaaacca 360  
atgaagaact gggtagtgag gggtttcgtg agttcatatc tctgttgat cttanaaaaa 420  
atgg 424

<210> 3277  
<211> 423  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-D3

<400> 3277

gcccacgcgt ccgcccaatt ctcacaaaa atcgcanaaa agatttcaac tttcgataaa 60  
cccagatcga aaaatcagat ttttcagat caatcagaga gttagnatg gngtatanta 120  
acaacaatca gcaatctttt tggcagttca ggcaccagct gagagttcag acaccgaatc 180  
tagcgaatct gtctctcaac gactcgatct ggagcacaaa ctctgtcttc aaanagcgtc 240  
gaaacttaga catagccgcc accaccgaca agaacaacaa ccagatcgac tattatcaga 300  
agaagacaac ttccgacaac atcaattcca actggaactg gaagtcttct ggttcaaaca 360  
acgacatggg tttaggattc ggacctgtgg gttcaaaatc caacgtcgat ttaaanccaa 420  
tcg 423

<210> 3278  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-D6

<400> 3278

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cgttaggggtt tcacggcgga gattcaagtt ctttgacctt ggaagctttc actatcaccg 120  
gagactattt caatggcaac catggctagg tcgtttctgc aggcgatatc gaaggatgag 180

gcggtggctc ctccgcttag agttgttcag atcgaaggac tggctgtact aaagataatc 240  
 aaacactgca aggagttttc accgaccctt gtcactggac agcttcttgg acttgatggt 300  
 ggtagcgtcc tcgaagttac caattgtttt cctttcccgg tcaggnnnnn nnnnnnnnnn 360  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn ngaagttaat 420  
 g 421

<210> 3279  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-004-Q1-E1-B4

<400> 3279

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 ggaatgagaa gatgcccgtt aaagatctaa cgaatctaag atacttccag ccgacatata 120  
 tatgcgtgga tggatgatggc acagtcccga tggaaatctgc catggcggat gggcttgaag 180  
 cagtagcaag agttggagtc cctggtgagc accgaggaat cctcaacgat caccgtgtct 240  
 tccgaatgct caaaaaatgg ctaaatgtag gcgaaccaga cccgttctac aaccagtaa 300  
 acgattatgt catccttccc accacatatg aatttgagaa attccatgag aatggactcg 360  
 aggttgcttc cgtgaaagaa tcgtgggaca tcatatcaga tgacaacaat atccgcacaa 420  
 ncggg 425

<210> 3280  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-003-Q1-E1-H10

<400> 3280

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 ttatanaaca gttgatattg ggccagatgc tgaaaacaag atagagattc cggaagtgtt 180

ggggtgagaa gtctgatcta aggaggttta aagatggaag aatatctgaa agcacagttt 240  
 gggagactca gcagtggacc aaacatctta tcatgaaaca aattgttgaa tatatcctta 300  
 agcggcatct ttcactgacg tccgatgaca ttgtacaatt agtgggatca acttgattct 360  
 ctctaaaact atggggggcaa agaccanta tcnttatctg ggnaatttgg ttcaagccta 420  
 agaaagttt 429

<210> 3281  
 <211> 452  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-003-Q1-E1-H12

<400> 3281

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 cggagttaca tgattcattt acngccttta ggggaccctg tattgcccga aatgctgttg 120  
 aagatactag aaccttatcg gaaagaaggt tgcttgctgg acgatgaaag agcaaaactt 180  
 tacgctgatg tgggtcaagaa aggttatgct gcaagatttg cttttgcagc ttctgttttt 240  
 ggtgaaacct cagaagcact tttctggttg caacttcctc aagccattcg ccatctgatg 300  
 aacaagctaa cgagaaggtc tccgcagaaa atctcttccc ctactttaga ctcaggagct 360  
 gatgaagtag ctatgccgag taaaatacca tctactggat taaccgtcac ctgaaaccaa 420  
 gaaagataga ctctaagtt gtgatnggtt ca 452

<210> 3282  
 <211> 440  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-003-Q1-E1-H2

<400> 3282

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 cccattgcaa ttanggtttt caaaacgggt aatcgaattc ggtgggtgctc ggctttgaaa 120  
 ttgaggatga gatcctttcc acttccttct acctgctgac aatgggcaac tgcggtacta 180

gagacgaggc tgccgtcttc actcctcaag ctcaagccca acagctccag aagaagcact 240  
 cccgatccgt ctcagatctg agcgatccat ccactcctcg cttccganac gactctcgca 300  
 ctctattttc gtatgcccaa gtcacccctt ttacnttggt tgagcttgag aacatcacca 360  
 agagctttcg cccaaattat atactccgga gaaaggtggt ttcggtaacg ntctacaagg 420  
 ggttacattg atgacaatcc 440

<210> 3283  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-003-Q1-E1-H4

<400> 3283

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 gatgagacag aaaccagaa actgaaanac aaaaacccaa ctcgtganat ttcgttccga 120  
 ccaaattctgt ctgatttggt atctgaacaa agtacggtaa tggagttgat ggctaaacca 180  
 accttctcca tcgaagtctc tcaatacggga accaccgatc taccggcgac ggagaaagct 240  
 tcctcttctc cttctctttt cgagacaaca ancgangaag gagtananga atctgggtcta 300  
 agtcggatct ggtcaggaca aacggcggat tactcatcgg atagttcatc aatcggaact 360  
 ccgggagata gcnaataaag acgaagaagg aagccaaaac gaaaaccaat gacntt 416

<210> 3284  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-003-Q1-E1-H6

<400> 3284

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 tctggaatcg agaaatcaac aactgaagaa caacggcaaa gattcggttt ttagcagaac 180  
 actcaggaag ttttactca aacatcatcg aaaaattcca gattccggga acagtcttgg 240

tcgtcggttca tgtgatgtag atcctaggtt gtctcttgac gcaagtcgaa gtctcttttcg 300  
 acgagcctag agcttcatgg ggatggatgt ttgattggaa agacatatcc aaagctgata 360  
 cctttgtcct ctgtgactga agacgttaaa gcctcgccgg agaagataac cggtgagaag 420  
 gtanaggaa 429

<210> 3285  
 <211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-003-Q1-E1-H8  
 <400> 3285

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 ctagatccga tggcgaaaga accagttcgt gtgctcgta ctggagctgc aggacaaatc 120  
 ggatatgctc ttgtacctat gattgcaagg ggtatcatgc ttggtgctga ccaacctgtt 180  
 atcctccaca tgttgatata tcttccaaact gctgaagctt tgaacggtgt taagatggag 240  
 ttgatcgatg ctgctttccc tcttcttaaa ggtgttggtg ctacaaactg atgccgttga 300  
 gggatgtact ggantcaaag ttgccngtta agggttggtg ggtttcccga agggaaagaa 360  
 aggtatggan aaggaaggga ttttnacgtc caanaatgtt tccag 405

<210> 3286  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-004-Q1-E1-A1  
 <400> 3286

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 caaagtttga ccgaccacct cttctccact tagcattcca agcacttgat aggttttcgt 120  
 ctcaagcagg ccgatttccg ttgctgggtt cagaagaaga tgctcagaaa ctagtggaaa 180  
 ttgcagttga cattaatgag ggtttgggtg atgcaagggt ggaagatgtc aactctaaac 240  
 tgttgccgca tttggccttt ggatccaggg ctgttctgaa tcctatggct gcaatgtttg 300

gtggcattgt tgggcangag gttgtcaagg catgctctgg gaaattccat cctatctttc 360  
agttctttta ctttgattcg gtggagtcac tccccaaggg acctcctgaa gcatcaaagt 420  
ttaaacac 428

<210> 3287  
<211> 422  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-A10  
  
<400> 3287

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ctccggcgaa gatgcaagag atccaccaat tcctctctc cgcactcacc cagcgtggcc 120  
cttcgctct tccatacgcc gagaacacca agtcgcta at ccgtcaacac ctctcaacc 180  
taatctcttc ctacacttcc ctcgacccca aaacggcaac gtttacacac aacgatggcc 240  
gatccgtgat tctctccaa gccgacggta caatcccgat gcctttccaa ggcgtcagct 300  
acaacatccc cgtcgtgatc tggctcctcg aatcttacc tcagtatcct ccttgcgttt 360  
acgtgaatcc tacacgcgac atgatcatca aacgacctca ctctaattgc tctcccttcn 420  
gg 422

<210> 3288  
<211> 415  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-A11  
  
<400> 3288

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agggttttcg gagatctctg tgattcctct gaatttgctg aatttttttg aggaggcggt 120  
agaagtcggg cttcttaaaa atcagatctt ctgctcaggc tttaatcggc gacgtctggt 180  
attgggatct gtgacacaaa aagctgcggt ggagactatg gaagaagttc agcctccagt 240  
gaccccgccc attgaaccaa atgggaaaag aagcgaagcc tctctcttgg acatatgoga 300

gaaagttctg tctcttgatg ggagcacttg cgatgaagct ttgaagttgt ttacaagaaa 360  
ccaaacgaat tttgtcaagc aagcatgtct aacattggaa gtggnacgcc gggaa 415

<210> 3289  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-A2  
  
<400> 3289

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ttctctttcc ttccctcca aacaaccgcc aaaaaaacct acatcaacng cgtcaatcan 120  
tccgataaac cggaatcatt cctcactcac cacgattggn acacatctca actcaattca 180  
agaatcatct cttctctaca cttacacaac ctctctccaa ggnttctccg cttaactcga 240  
ctccaacgaa gccgattctc tctctctctc ctcaaactca atctctgata tcttcgaaga 300  
ttctctctac acacttnaca ctaaggcggtt actcctggag ttttctcggg tctcaaattc 360  
cgaaattcng ggggttaatc tncgggttct tcttctctaaa gggggttaat caatccggag 420  
gnttta 426

<210> 3290  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-A4  
  
<400> 3290

ggagaacggt acagtccgtt gccggtgtga gaactctgcg atgctcgggtg agagaaagaa 60  
cgtaaatctc ccagggtgtg ttgtggatct cccaactcta actgagaaag acaaagaaga 120  
catcatgcaa tggggagtcc cgaatcaa atcgacatgatt gctctgtctt ttgtcaggaa 180  
aggttcagac ttggttcaag tccggaaact tctaggaaag cagccaaaa acattcttct 240  
catgtctaag gtcgagaacc aagaagggtg ggcaaatttt gatgacattt tggtaatttc 300  
agacgctttc atgattgcta gaggagatct gggcatggaa atcccgttg agaagatctt 360



cttagctcag aaggtgatga tctacaaatg caacatccan ggaaaacctg tggtcacaac 420  
aact 424

<210> 3291  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-A6  
  
<400> 3291

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tgccctcagat ctgggtgcga tttcaaattc tccttagttt ctctcgcac gctcggccgt 120  
tgacgggtccc gtcctttccg tggatctgat tctggccccg gattctctcg ccgcatctg 180  
aggtcaaaca tggcgggtgc taacgcgccc atcattatga aggaggtcct aacgcttccg 240  
agcgttggga tcgggtcaaca gttcatcacc ttacaaatg ttactatgga gtctgataag 300  
tacatatgtg tacgagagac ggcaccgcag aacagtgttg taattatcga tatgaatatg 360  
ccgatgcaac ctttaaggag gctataactg ctgaatctgc tcctaagaan ccaaac 416

<210> 3292  
<211> 424  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-A8  
  
<400> 3292

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ataatggcgt cgatccctcc gccggagctt gacaacgact cactggcgctc atcgccgaga 120  
tcggagtacg atagtcagcc acgcgtacgg ttcattgtga cttttggagg aaggatcttg 180  
ccacgtccgc cggataatca gctctgttac gtcggcggcg ataatcgcat ggtcgtgtt 240  
catcgtcaca ctactttcgc ctctctcctt agtaaacttg ctaaactctc cggtaaaagc 300  
aacataagcg tgaagtacca gctaccaaac gaagatcttg acgcgttgat ttccgtatca 360  
acggacgaag atgtagagaa catgatggac gaatacgacc gcgtcgcaca agaataaaaa 420

ccca

424

<210> 3293  
<211> 408  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-B2  
  
<400> 3293

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aatggattg gtcaccaag atttgagcta attcgatcgt atgtgactga acctcttttc 120  
gtcgagggtg atcaaacta ccatttagca tgtcccgtt ctccaatttt ctacaaatac 180  
aaccctgta agacgataaa aacaaatgtg attggcacac ttaacatgtt aggactagct 240  
aagcgagttg gagcaagaat ttacttact tccacatctg aagtgtatgg tgatcctttg 300  
gttcaccctc aaaccgagag ctattgggga aatgtaaacc cgatcggtgt tagaagctgt 360  
tatgatgaan gaaaacgtgt tgccgagact cctatgtttg attancat 408

<210> 3294  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-B3  
  
<400> 3294

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gtcgatcga tgcagcagcc acctccagct tccaacggtg ctgcaacagg gccagggcag 120  
attccttcg accaacaagc ttacctcnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn ngctctgcacc gtcttctggt 240  
caaccacagc agcagcagta tgggtggtgt ggatctcaga atccaggatc agctggtgag 300  
atccggtccc tgtggatcgg tgacttgacg ccatggatgg atgagaacta tctcatgaac 360  
gtctttggtc ttactggcga agctacaagc agctaaagtt attcgcaata aacagaacgg 420  
gtantc 426

<210> 3295  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-003-Q1-E1-H1

<400> 3295

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 agcctcttct tgttcgtgat ctctcttcct ccggaanaag atgtcggccg gtaacggaaa 120  
 tgctactaac ggtgacggag ggttttagttt ccctaaagga ccggtgatgc cgaagataac 180  
 gaccggagca gcaaagagag gtagcggagt ctgccacgac gatagtggtc cgacggtgaa 240  
 tgccacaacc atcgatgagc ttcattcggt acagaagaaa cgttctgctc ctaccacacc 300  
 gatnaaccaa aacgccgccg ctgcttttgc cgccgtctcc gaggangaac gtcagaagan 360  
 tcaacttcaa tcaacaantg catcctaacc atcgtaacg anagaatcag gacaaaggtg 420  
 gtaaaaggaa 430

<210> 3296  
 <211> 495  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-002-Q1-E1-D3

<400> 3296

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 aaggagagac atacgaagag attgtggggg tagctagggc aatgatgnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnnnnnnnn tcttctgctt gtggaagtgc tgatgtacta gaggcactag 300  
 gagtgggttct ggacttgga ccagagggca ttaaaagatg tgttgaagaa ggggggatcg 360  
 ttttatgatg tcaccaatgt atcatccagc tatgaagatc gttggctctg ttcggaaaaa 420  
 gcttaaaatt aaaactgttt ttaacataat gggacctaag cctaactctg ccaagagttc 480

ctaagccgtc gttgg

495

<210> 3297  
<211> 458  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-002-Q1-E1-D4  
  
<400> 3297

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ggctgaaagt gaagcttctg tgaggtaccc gggatgatcc gtatgataga atatgggaat 120  
ctgatttgca aaagaagcct aattatcttg tggatgttgc tgctgggact gtgcgagtgt 180  
cgactacatt gccaatcgaa agcagggctg atgacagacc gcctcagaag gttatgcaga 240  
cggctgtggt tggaacaaac gggtccttaa cttacagaat gaacctagat ggcttcctctg 300  
ggttttggtt gggcattcac atactttgct gaaatcnaag gatttggctg aaggatgaat 360  
caagggaaat ttaaattaat tctanctgaa cancctgagt atancaaatac cggtttggtta 420  
acatcaangg aaaatacaca gagaccgtta cnccgttt 458

<210> 3298  
<211> 490  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-002-Q1-E1-D5  
  
<400> 3298

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tgtttggtgc ttggttttga agccggcctt tgatgggtgc ggcagaatct ggaaccgatc 120  
ggagaagctt agcttatgga tttggagttt ctctgtgaat gaatctctgt ttgttatggg 180  
gaagaatacc gtcgaggagc agaatctccc tgtgagcgac ggagctgctt cggctaggaa 240  
taacggaggt ggaggaataa gcacatgttg ttgctgtgat tggatctcta gctactttag 300  
tctcagatgc gttttganc tttgtttttc tgctgctgtg tntctctccg ccttgtnntg 360  
gttacctcca ttctcggat ttgcangatn caagggatct anatctcgat ccaagggtta 420

aagatnacag aatantggcg anttttggang ttggaaaacc aatttcgttc aagggaaaac 480  
 aanttttaggc 490

<210> 3299  
 <211> 446  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-002-Q1-E1-D6  
 <400> 3299

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 cttgtaatcc atttcagcga ttagatataa tcaaaacttt ttcaacttgt agtggccaaa 120  
 ttttttgttt aatggttgta aagatatcga aaaagttttt tgatgttaaa gataaagaaa 180  
 aaattgattt accacctggt ttcagatttc acccaactga tgaagaactt ataacacact 240  
 atctaagacc aaaggttgta aactcttttt tctctgctat agctattggt gaagttgatc 300  
 tcaacaaagt cgagccttgg gacttgcctt ggaaggctaa gcttggggaa aaagagtggc 360  
 acttcttttg cgtaagagac cgaaaatacc cgactggttt aagaacgaat cgtgctacta 420  
 aagccggtta atgggaaagc tacang 446

<210> 3300  
 <211> 449  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-002-Q1-E1-D8  
 <400> 3300

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 aatattttgc ttcattcaag gtcttgaaga tgggtataaa agtttcatca aagatcaaaa 120  
 gaattctcgc atccacagct tcaggtagtt caaatcccaa agatggtgct gacgtggatg 180  
 tccgagagga atatgcaaac gcctttcgta cggaatcata caatcacttt tggacacgtg 240  
 tcgtacagct aagccgcaaa aagtccgcag tgtcttcttc ttcttcttct ccaccaatcg 300  
 aatcatcctc caggtcagct cgtctcatgt cttatccgcc tattecgcca caatcttcta 360

nacccgggnt ctgantanca ttactcgggt actaagatgt aaccccggt cngggcgaca 420  
caccgaaac tcntctctct gattacttt 449

<210> 3301  
<211> 449  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-002-Q1-E1-E1

<400> 3301

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atggatgagt tgtagtttcc atctcccagc cggatataga aagaagaaac agaggaaatt 180  
tgttcataaa ggaggtacat atatacacat acaagtctct gtgaaatatg acatctcagc 240  
taaaacgaac tttaccaag agatacgggtg ttcttgaact gtgggagatc atagtgattg 300  
ctctctttgc aagccttcat agtaatcctt gtcctttcaa gtttggtcact acttcccgtta 360  
aaaagtccaa aagatctaata gctacaacgc ttctgtaac tcaaagccct cgcnttaacc 420  
gaagaaataa aagaaataaa gtgttgatc 449

<210> 3302  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-002-Q1-E1-E10

<400> 3302

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agctggataa tcggagggct cttgcttgct tcacagtatt ttcttatatc cgtctgggat 120  
attcttcaga ctctgtcat ggaggtttac cctgaagaga taaccgtagt cttcttctac 180  
aatttatttg caacactaat ctcaagtacca gtatgtcttt ttgcggagag caacttgact 240  
tcttggtgctg ttaaaccaga catttccctc gctgcaatca tatactcggg agtcttcgtt 300  
tcattattca gcgcgcttac ccacacatgg ggtctgcac tgaagggtcc ggtatacata 360

tccttggtca aggcattgtc tantgccatt gcagtcncca atgggtgna aaatcctcgg 420  
ggatgc 426

<210> 3303  
<211> 422  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-002-Q1-E1-E12

<400> 3303

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tttatgaagc aactgagcta ataaaaagct tcttcttaga ctcggaagaa gataaaaaac 120  
agaatcttta ttgtttaaag cttccaaatt cgagaagaga atttgaaacg accaagttca 180  
gganatncgt ttcttcgtct actttggtct cttcctcttc tctttcgaaa agggtttatt 240  
ctgtcttaaa agaaaccttt ttgagagggt aaaaaaagct tcaattttca gagaaacaca 300  
aaaggcaaga aacagagaaa aacaaatcat ctaattcatg aaacanggtt caatgaatan 360  
atcgtgtctc tgtantgtcn taancaccac tgctctgatt tgtgggtgctt acntcatttg 420  
ca 422

<210> 3304  
<211> 463  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-002-Q1-E1-E5

<400> 3304

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ttggaccagc tactgttggg ggcgttcaag ctggagcctt taaaattggg gacacagctg 120  
gaactattga caatatcatc caatgcaagt tgtacaggcc tggatctggt ggctttgtct 180  
caaaatctgg tggcatgtct aatgaaatgt acaataccat tgcccgtgtg acagatggga 240  
tctatgaagg cattgctatt ggtggggatg tgttcccggt ctcaacttta tctgaccata 300  
tcctgcggtt taacaacatc ccacaagatt aagatgggtg ttgtacttgg gagaacttgg 360

gaggaagaga tgaatattcc tccaagttga aagccatgaa acaagggaaa agttgaccaa 420  
accantgggtt gcttgggtca gccgggactt gtgcacgtct att 463

<210> 3305  
<211> 498  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-002-Q1-E1-E6  
  
<400> 3305

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tccgtcttta taactaccat attctcaatc acaacactcg cactgtttc gaatagatgg 120  
cttctatttc aaccctttt ccgatttctc tccacccaaa aaccgtacga tcaaagccgt 180  
tgaaattccg agttttgacc cgtccgatca aagcttccgg gtcagaaact cctgatctaa 240  
ccgtagcgac acgaaccgga tccaaagatc tcccgatccg aaacataccg ggaaactacg 300  
gtttaccaat cgtaggacca atcaaagacc gttgggatta cttttacgac caaggagctg 360  
aagagttctt caaatcacga atccgtaa atcaactccac ggtgtacaag agtcaacatg 420  
ccaccgggag cttttatcgc cgagaatcca caagtcgtgg ctttactcga cggtaaaagc 480  
ttcccggttt taatcgat 498

<210> 3306  
<211> 445  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-002-Q1-E1-E7  
  
<400> 3306

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnag caaccaagtc atggcagaaa 120  
tcaccgacga gttagcgaca ttgatggagg ttaaaacaga gtttgaccca gaagacaaac 180  
acttagcttc atggagtgtt aatggagatc tgtgtaaaga ctttgaaggt gttggttgtg 240  
actggaaagg acgagtttct aacatatctc tacaagggaa aggcttatct ggtaaaatct 300



ctccgaacat tggaaagctt aaacatttga cgggtttgtt cttgcactac aatgctcttg 360  
 ttggagatat tcc tagagaa cttggtaact tgtcggaaact tacggatctt tatctcaatg 420  
 ttaataatcc tctccggtga gattc 445

<210> 3307  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-002-Q1-E1-E8  
 <400> 3307

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 agcacgaagc aatgtgggga tgtcgcattgt gatctactga cggctgacaa gagggaggtg 180  
 gcggaggagg ggtggtgttg ctatgatgtg ggcggcggct gctgttactg ggcgcatctg 240  
 ccctgtactt gctacggtgc tgcgagccat gtactgctgg agatccaaag agttgtgcgg 300  
 ctgctgcctt gccancagtc tgctgacgtt ttctgttgtc atgcacactg gggaaggcat 360  
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<210> 3308  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-002-Q1-E1-E9  
 <400> 3308

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 ttgggtttgg gttccgtccg aacgacgagg agctcgttgg tcactatctc cgtaacaaaa 180  
 tcgaaggaaa cactagccgc gacgttgaag tagccatcag cgaggtcaac atctgtagct 240  
 acgatccttg gaacttgccg ttccagtcaa agtacaaatc gagagatgct atgtgggtact 300  
 tcttctctcg tagagaaaac aacaaagga atcgacagag caggacaacg gtttctggta 360

aatggaagct taccggagaa tctgttgagg tcaaggacca gtggggattt tgtatggagg 420  
gctttcgt 428

<210> 3309  
<211> 268  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: LIB22-002-Q1-E1-F12  
  
<400> 3309

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tttggaatgt tataaaaagg acctcttcgg cttttttgta ttaatcaaca gctacgtaca 180  
aataagccga agaggtcctt tttatacgta gctgttgatt aatacaaaaa gagaactctt 240  
ctcgcaaaaa aaaaaaaaaa aaagggcg 268

<210> 3310  
<211> 451  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-002-Q1-E1-D1  
  
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attcagatcc tggttgatgg agaaccaagt taaagctgat gagcatgtgg ttacagtaaa 120  
gattgcctaa gtgaaaagaa aggagaattg agtcttcac ttcaatagac caaggtagt 180  
aagcgtgagg aattgcgtgc aatattttgt tcgtgtgtga agttcaaaga aaacgttttt 240  
ggcaagatca gatgaaaaca tgccgtctta gtctatatgg cggggcagtt gctcaggttt 300  
agttgtctcc ctcgtttggt ttgtcgtctc cctcgtttgg gcttaagctt ctcttcctcg 360  
actatattac ttccgntaat ttgggggttg agccttttgg gtaagtcctg ggtctatcct 420  
cantantaa taaaccgatg ttttggtta a 451

<210> 3311  
<211> 507

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-002-Q1-E1-A3  
  
 <400> 3311  
  
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 agaagaagag agagactcgt aagcaacaat aaccaatagn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnngac gtcgtcttcg gctttgtagc 180  
 atctcgccga agcgtcgttg atttgagaga gacccaattt ggattgtagt aaaatggggt 240  
 acataggagc tcatggtgta gctgctctta agaaacacaa atacagtggg gttgatcact 300  
 cttatcttgc caaatatggt ctccaacctt tttggaaacg ttttgtcaaa atcctccctc 360  
 ctatgggatg gcccccaaca tgataacact taaggggggc angtttcctc ccanatcctg 420  
 gctctcctaa ggctatatat actcanctaa agttgggatt ctccaactcc tcgaaggggt 480  
 ccaactttgc acacgggtta cttctgg 507

<210> 3312  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 3312  
  
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 ctactctccc cctccggttt accactcacc ancancacca naaaaanatt acgtttacaa 120  
 gtctcctcct cctccggtta agcactactc tccccctccg gtttaccatt cccaccccc 180  
 acctaaaaag cattacgtct acanactctc accaccaccg gtgaagcact actcacctcc 240  
 tccggtttac cattccccac ccccccaaa gaaacactac gtgtanaaat ctctcctcc 300  
 tccggttaag cactactctc ctctccggt ttaccattcn ccaancccca ctaaagaaac 360  
 actacgtgta caaatctcta ccaccaccgg tganngcact actctcccc tcnagtttac 420  
 cattcccc 428

<210> 3313  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-002-Q1-E1-B10

<400> 3313

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cctttgtcta agctgattga agttccgtta gctcatattc cggaaccagt gtataagaca 180
tcagttgatt ggatcaacca tcgtccaatt gaggcacttg gagcctttgt gttgtgggct 240
tttgattgta ttctcacaga tttagcagca caacaagggt gtgctaaagg tgggaagaan 300
gggtgtcaac anactacttc caaatctcan gtggcaatat ttgttgcat agcgatggta 360
ttgcgtaaga agnctgatgc tttgactaat gtatgccaac tcctgangga agaatcccaa 420
attac 425
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<210> 3314  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-002-Q1-E1-B11

<400> 3314

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ctctctcttt ctatctctac agagtaaagt tctgatcgtg tctcttatcg tttacccaaa 60
aacccttggt tgatctctcg tctcttggtt tcttctgccc tcgaagtttt caggttatgt 120
gggtggagggt gtttccaatt taaagtatgt accttaggt tagaaattag gcttatttgt 180
ttctccagtg gggttcattg tagaaacaaa ttgaatttta ggtgttaatg tgagattagg 240
aaacagaatc tctgctttta acaaggtaat aggagaatag gggttagtag aagaaagggt 300
aaaactttgt gatgggtaat aanttgggaa ggaagaggca ngtgggtggaa gaaaggtata 360
caaagcctca angtttgtat gtgaataaag atgtcgacgt ta 402
```

<210> 3315  
 <211> 447

<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-002-Q1-E1-B2

<400> 3315

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cctttggttg ggtaatttag tctctgctca tagnnnnnnn nnnnnnnnnn nnnnnnnnnn 120
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnaac caattgaatt 180
agctaagctc agagatcctt cttggtttgt gttttgcgca agtcagtttc tctctggta 240
tggaattgcc tttatgtcct ttgctcttct gctttgctgg gtcctcttgg gcnnnnnnnn 300
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnngcagc 360
gtcatctaca agctcctttc tagcttcttt gaggtttgaa nttgggctac aagcgtcaca 420
agtggaacga ttaacatggt cctcncc 447
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<210> 3316  
<211> 450  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-002-Q1-E1-B3

<400> 3316

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gaatcaggag gttctggttg gaaagataaa accaaaaaac ctgcttgcca tgatatcata 120
gggcttgatt ccttgaaaca gttcttgta tacatagcca aagggtactga gattaagaaa 180
gatacccgag taaaaaagag cattctctgt gcggctggca agatggaaat tcgatcagat 240
ctgatggatt ctcatatata tgccttcaag agagcagttc tgcaggaagt tttggatcaa 300
aaacctgctt ttaggagcct aaaacaggat gtactaccgt atcttggttcg tacacagctg 360
agatnagatg tcctctctga ccaaagtaat gtnnaagaaa atgggaatgg gaatgggaaa 420
aataatatgc agaacaacga agtgggcct 450
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<210> 3317  
<211> 453

<212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-002-Q1-E1-B4  
 <400> 3317

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnna aaccaccctt tcttcaccgg 120
accacccgcc gtcgcgcgcg caaacaacat ccatctctat caagcagctc ctccgcagca 180
gccacaaaca tctccaagtt cctcctcatc catctatttc ccaccctcct tactctgaca 240
tgatttgca ggcgattgca gcgtaaacy aaccaagatg ggtcaagcaa gcaagctatt 300
tcgaggtaga tagagagaat ttacactggg attcctactg ctcatgggag ctttggtgac 360
acaccatctc aagactttga agaccagtgg gattcttgtc atgggtaaga aatcttacia 420
gcttgcttct actcctcctc ctccctcctc cta                                     453
  
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<210> 3318  
 <211> 449  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 3318

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tacttaaaact cttctctctt tcctctctca ctttaaaaat ccacacttta nagcacacia 120
tacaiaaaat aagggtttct ttatcttttc gtttcttcca aattttgtaa tggatttgat 180
gcaaatggat aagcgtttgg attcaacgga gcaagtgggt gaagaaatca tgagaattca 240
cagatctcta cccgcaagac caggaattga cgaagttgaa gctgccaagg gtttgattga 300
caacgttgag aaagaagatc aagcttggtt agaagccatt gctagacaga ggaaaagctc 360
tgaagttcct ggtgagcttt tcatggtggt gcaagaaatg aagaagggtt aaggttcagt 420
ttcgtagcaa agaacaagat aagagaaag                                     449
  
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<210> 3319  
 <211> 495

<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-002-Q1-E1-B7

<400> 3319

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ttctttcttct tttggttctg tctgaatcca attttcttat attttatttc ctccaccacc 120  
gtgagatatg atcgccgccg gagctaaatc gctattaggg ctttcgatgg cttctccaaa 180  
agggattttc gatagcaatt caatgagtaa ttcaagatct gttgttggtt ttcgtgcttg 240  
tgtttctatg gatggatctc aaactctgag tcataacaaa aatggatcta ttcctgaggt 300  
taaataccatt aacggtcaca cgggacaaaa gcaaggacct ttgtctacgg tcggaaactc 360  
gacaaatata aagtggcatg aatgttctgt tgagaaagtt gatagacaga gattgcttga 420  
tcagaaagga tgtgtgattt gggtcaccgg tcttaagtgg ttcaaggaag agtactttgg 480  
cttgtgcctt tgaat 495

<210> 3320  
<211> 439  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-002-Q1-E1-B8

<400> 3320

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attggtatcc ttagaatttt caccaatcag tttcctgaag ctaagattac ttcttttcta 120  
agtcttggag gaagttccac caatattgct tatagccatt ggcttagata atggctgcat 180  
ttattgtgtc aaaggagaca ttgcacgaga gcgtatcact cggtttaagc ttcaagtgga 240  
tggaagggtcc gctattacag gcttgggggt caggatggat ggccaagcgc ttctgttggt 300  
tgcagtcact ccagagtcag tcaacttggt tagtatgcag gcgcagccac cgaaattgca 360  
gactttggat catattgggg gcagtgtgaa tactgttaca atgagtgacc gctcgggaatt 420  
aatagttggg ccacctgaa 439

<210> 3321

<211> 348  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-002-Q1-E1-B9  
  
 <400> 3321  
  
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 tcacattgag gttcttagtc tacggaagcg caggaatcaa ttggatccaa tcgccaaacg 180  
 ctattcccgc tgattggact gccggagcca cctacgactc caacattcta cttacttaat 240  
 tgattcactt ttcacagtg tgtttttatc atatagtatt tattatggtt tctgtatgca 300  
 atggctaata tatttaaata atgccctcaa aaaaaaaaaa aaagggcg 348

<210> 3322  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-002-Q1-E1-C12  
  
 <400> 3322  
  
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 ctgagaagaa gaaaaggaag ctgagtctca ttttagattc agctcacgag gaagtgacga 120  
 cgatgtctca ttctagaaga ctttcgttgg aacctgctat agattcaatc actggtcgat 180  
 ttcgtgattt acagagaaat gatgatgacg tcaacaaacc tgattttcga gaactcgatc 240  
 taggttctcc tgtttctacc ttaatgccac gtggctctgc ttcttcttcc gctgctgcga 300  
 ctctactag cagctctggc tcttctggtc ctgcttctgg taaaccgtcg gtgagttctc 360  
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 gga 423

<210> 3323  
 <211> 497  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations



<223> Clone ID: LIB22-002-Q1-E1-C7

<400> 3323

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tagattactt aagctatggt ttggtttaga atcggttctt ctgtggcaaa gcttgccata 180  
agaaggacac tgtctcagtc tcgttgtggt tcatatgcca ctagaacaag ggttttgcct 240  
tgtcaaacca gatgttttca ctctacaata ctcaaatcaa aggagagtc tgctgcacct 300  
gttccacgtc ctgtcccact ttctaagcta actgatagct tcttagatgg aacaagcagt 360  
gtgtatctag aggagttaca aagagcttgg gaggctgac ccaacagtgt tgatgagtcn 420  
tgggataact tttttaagaa ttttgtgggt caaggcttct acatcgctg gtatctcggg 480  
gcaaaccatt caagaaa 497

<210> 3324

<211> 425

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-002-Q1-E1-C9

<400> 3324

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cgttcagatg agattatcat acagcccgac tgctcaattt tttctttttc ttgtacaatg 120  
gactgattgt aagcttgctg gtttcctcgg ttactcaga gttcttattt atatgactta 180  
tgcagatggg aaaacaacca tgtcggttta cgaaagaaaa gccagtatta gagagttcca 240  
aggatgctt atatatatgg cgatgatatt atttctggta aacaagattg atatcgttta 300  
attcttatga gctttttaat attttcgta tgttttagct gtgatattac catctttgtc 360  
acaactacaa aggggtgtta cagacataga tgacagcaaa caaaaagagg tatgcaagat 420  
gcgat 425

<210> 3325

<211> 448

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-002-Q1-E1-A2

<400> 3325

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ttggtcacct ctgaaatata tgagatagaa gcgaaagata aggaatgtct aaaaggatac 120  
attgatgcgc ctttaagcta ttgtatggct aggatttata cgtcgttggt ttatcgaaat 180  
tgtcgtttttt acaagggcgc gaaagggtgga aaatgcgacg gtcttaagtg cttctgcgac 240  
ttctgcagcg acaagccttt ttagtcagtt tctgatgaga aatgtttgaa tcttggcatg 300  
tataatggtt tgtgnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360  
nnnnnnnnn acgctagact ttgattgtgt tatcactaaa ataaaatgaa gataagtggg 420  
acttcggttg tggatnactc cacgagtg 448

<210> 3326  
<211> 434  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-001-Q1-E1-E6

<400> 3326

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tatattatac gttagattgg taactaccaa aaatattact atatgttaga ttggtcacaa 120  
aataagaaaa gaaaggtagt gtatatcaat ttattaatga cgtatttaat aaagttgggtc 180  
tcaagcgaaa tgaattgttc ttactgcta caaggcatat aatcctgtaa agaaaatctg 240  
ggtggtcgaa ttgttctttt ccctttttct aatttcaaca tcaaaagttg ttccaccaga 300  
agaatttggt ctctgcagca gtaaagatcg atccgttctt gcttacaagc agaaaaatca 360  
tatcgacaga gagagatgag acagaactca gcaactgggt ggtctttcat ggcggcgttt 420  
actgttcctt cgct 434

<210> 3327  
<211> 435  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-001-Q1-E1-E7

<400> 3327

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tgcgtgtgtg tgaagaaagg atggaccttc tgcgtgcagc cctggttggt gcccctggaa 120  
cgccatatca cgatgggctt ttctttttcg acataatgct tccacctcaa tatcctcatg 180  
agccaccaat ggtacattat cattcagggtg ggatgcgact gaatccgaac ctgtatgagt 240  
caggaagagt ttgcttgagt ctgctgaata catggagtgg ctctggcact gaagtatgga 300  
acgcagggag ctctccatc cttcaacttc ttctttcggt tcaggctctg gttctgaatg 360  
agaagcctta cttcaatgaa gctggctatg ataagcagtt gggccgaacc gagggaaaag 420  
aaaaactcag tgagt 435

<210> 3328

<211> 431

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-001-Q1-E1-E8

<400> 3328

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ctcactctcc tctctttgat gctttgggtg ttccttccga agactatcac cagagcgagt 120  
atgtttctgc acgagacaaa cgccgtgagt tcgtgtctgg attcagtgga agtgcaggtt 180  
tggcacttat cacgaagaag gaagcaagac tttggacaga tggtcgatac ttcttgcaag 240  
cattgcaaca gcttagcgat gagtggacac taatgcggat gggagaagat cctcttggtg 300  
aagtttggat gtctgataat ctacctgaag aggcaaatat aggtgttgat tcatggtgtg 360  
tctcggtaga cactgcgaat agatggggga aatcgtttgc caagaagaat caagaaacta 420  
atcaccacaa c 431

<210> 3329

<211> 426

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-001-Q1-E1-F2

<400> 3329

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attcagttcc tccatgacaa gacgattctc gtcaccggtg ttcccgggtt cctcgccaaa 120  
gtgtttgtgg agaaaatatt gaggattcaa ccaaaggtaa agaagctttt ccttcttttg 180  
agagcagcag acaatgaatc agccatgcaa cggtttcaca gtgaggtttt ggagaaagat 240  
cttttttagag tgttgaaaaa cgcttttaggt gatgagaatc tgaaagcttt cataacagaa 300  
aaagtcgtac ctattcccgg tgatatatcc gttgataatt tgggagttaa gggttctgat 360  
ctcttacaac atatgtggaa tgagattgat atcattgtca atgtagccgc cacaacgaac 420  
tttgat 426

<210> 3330

<211> 424

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-001-Q1-E1-F6

<400> 3330

aatccaacat gggcttctgt tccttatggg atcttcctat gcatcgattg ttctgctgtt 60  
catcgaagtc taggtgttca tatcagcttc gtcaggtaa cgaacttaga ctctgtggagt 120  
cctgagcagc taagaacaat gatgtttgga ggggaacaatc gagctcaggt gttttttaag 180  
caacatggat ggaatgatgg tggttaagatt gaggctaagt atacttcaag agctgctgat 240  
atgtatagac agactcttgc taaagaagtt gctaaagcca tggctgaaga aactgtttta 300  
ccgtcgttat cctctgttgc tacttctcag ccagtggat catctgaaaa tgggtttact 360  
tctgaatctc cgaaagagag ttctttgaag caagaagcaa ctgttgtctc ttcacaaaaa 420  
gctt 424

<210> 3331

<211> 435

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-001-Q1-E1-F7

<400> 3331

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 tcggtgcctt tgatcttcat ctctttggct ttgctttgaa atttcagggg tgaacaagat 120  
 gccttctccg ttggcagtgg tgtggttttt ctctccttcg atgtagttgt ggatccgatg 180  
 tgttgaagt agagagttgc tacgattccc ttcggttgtg gacgccggtt ggtgtagcga 240  
 tttcttctcg tggctcagcc gtcgtgtcgg cctctgcaac tacngcgnga agtcgatcga 300  
 agagaaggtg ggtaagtgcc aattcgccat gggagggttaa cgggtggatnt tcctaaatht 360  
 gttggctgtc gcggattcag tgtgtttggg tgtttcgctt gagccttggg ccctcaaaca 420  
 acancgtgac ttgct 435

<210> 3332  
 <211> 437  
 <212> DNA  
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 aggagatgag gggataaaga tggttatgga atgcaaggca taccacaaac ttaaaggctg 180  
 ttggaaagaa attacatctg ctttaccttg gaggacttat aatagtgtgt atcatcgtgc 240  
 acatactata tttgaagcag gatctcaggg gatatggacg aaagaggata ttgaactcgt 300  
 tatggagttt caaaagacac acgggaatga ttggaaaaca cttgcagatg caatgggtaa 360  
 gcacaggaag catgtgaaag acgcttggag gagangaaga ttggcangta agaagaaagg 420  
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 <223> Clone ID: LIB22-001-Q1-E1-G5  
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 gattctgccc ttcaagcttc accgaggagt cctctgagtt ctatagatct tgcaattgat 300  
 ggagctatga atgcttctat tgagcagttg tatcataacg tttgtgaaat ggagagttct 360  
 gatgatcagt ctccgtccag ggcgagtttt atttcgtatg gagctgaatc caaggattga 420  
 tttggagttg angc 434

<210> 3334  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-001-Q1-E1-G6  
 <400> 3334

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 tgaagatatt anagttgggg ctacttctcg aaaggcgatt cccttactag ttgaacttct 180  
 taaaccaatt ccagaccgcc ccggtgctcc tctactttca cttaatcttc taactcagct 240  
 tgctggggac tgtccacaaa atatgattgt catggtagag tcagggtgctc ttgagggctc 300  
 ctcgaaatat ctttcccttg gacctcagga cgagcaagag gaagctgcaa caggctcttt 360  
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 ccaa 424

<210> 3335  
 <211> 433  
 <212> DNA  
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 <223> Clone ID: LIB22-001-Q1-E1-G7  
 <400> 3335

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acaaaaagct tatccgagcc acttaccgcc ttatttctta ataagtgttc agtggatgaa 180  
tctgataag atttcaagtc tctgctctaa gctggactcg ttatggagtg aacagccagg 240  
gcaagaagtc ttgtaccagt ggacagattg gctacagaac tcgtcgattt ctcatcttgg 300  
ttttgataat gagattgttc ttggtcctta tgggtgttaca tgttccagag ataagcgtgc 360  
tgtgtctgga aatcgttctc cggattcaga tattccttat attaggagtt atgacgatga 420  
gaaacgtcat gat 433

<210> 3336  
<211> 470  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-001-Q1-E1-H7  
<400> 3336

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caaacaagcc tatatgctgc tgatcccatc taggggccaa gcctctcttc tttaaaaact 180  
tttgacttcc attttcttga gaattcccct ttctgggttc ttgatttgga aagatgggta 240  
acaagataat ctcaatgatg aagaaagata gcaaagatgg gaggaagang aggatctaaa 300  
gagcaaagag aatgaatcgg tctcaagagg aaaattactt gctgatgaaa gagatgtttg 360  
catcctccaa gtccttttcc aatgngaat tcaacaaagc tcaagctttc tcaaaaaatt 420  
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<210> 3337  
<211> 438  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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 atgttagtta atgtccattt tctgtggaca catgtggata tactgttatc ctctgtgata 180  
 ttagttatta ttacnaagac aacaatagtt acaaccgttg ttaanggatt tggatacaac 240  
 aataagacng ctcttctggt tggaatatct ctggctcaga taggggagtt tgcctttgta 300  
 ctacttaacc gtgcctccaa tcctcaactc atcgaangga aactccaacc tggctcccc 360  
 ttggaacaan ccgctctaaa gcctgggtta cgacaaccgc tgggttttca aaaatggata 420  
 ccaacaattt gtacatcc 438

<210> 3338  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-002-Q1-E1-A10

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 gggatgatgt tgaggctggt gttcatgcct gcgagcttgc tgctgagtgg cgtcagactt 180  
 ttcattctga tgttgctggt gatttggttt gctaccgtag gttcgggcat aatgagatag 240  
 atgaaccatc tttcactcag ccaaaaatgt acaaggttat caaaaatcat cttcaaccc 300  
 ttcagatcta ccacaaaaag ctcttggaat gcggtgaagt atcacaacag gatattgacc 360  
 ggatacagga aaagggttaac accatcctca atgaaagaat ttgtccctaa gtaaaggact 420  
 aaccccc 428

<210> 3339  
 <211> 426  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-002-Q1-E1-A12

<400> 3339

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 catagcagca tgtttcggaa tggccaatth ctttgctcgt ccagcaggag gctacgcata 180  
 tgactttgca gccaaagtact tcgggatgag agggagggttg tggacgttgt ggatcataca 240  
 gacggctggg ggctcttct gtgtgtggct cggccgcgcc aacacccttg taactgccgt 300  
 tgtggctatg gtgctcttct ctatgggggc acaagctgct tgcggagcca cctttgcaat 360  
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 gggaac 426

<210> 3340  
 <211> 433  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-001-Q1-E1-E5  
 <400> 3340

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 gcctttgctt cagtctcact tatcatagcc acagttgctt tcttgctctc accagggtggg 180  
 ctgcgatggg cctggaccgg gtcaccaag agtcgggttt cgattccagg accatctggt 240  
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 ttcaaggcct ctccgttgat ggcgttctca gttgggtttt cgcgtttcgt tatctctagt 360  
 gaaccggaga cggctaaaga gattttgagc aagctctgct ttgctgacc gncgggttaa 420  
 ggatcagctt aag 433

<210> 3341  
 <211> 393  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-032-Q1-E1-C8  
 <400> 3341

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cgagacgttc tttgtcaccg attgacatat tcaaaaacga cgaagctagg taaaggaacg 120  
gagagaagag tcgataatag aagcgtacag atgggaaatc agaagctcaa atggacggcg 180  
gaggaagagg aggcgttact cgccggagtt aggaagcatg gccctggaaa gtggaagaat 240  
attctccgcg atcctgaatt agctgagcag ctctctagtc gctctaacaat cgacctcaag 300  
gataaatggc gtaatttaag tggtgctcct ggtattcaag gctcnaagga nntaagatac 360  
cggcaacaaa natcaaanct ggcggctttc aac 393

<210> 3342  
<211> 360  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-050-Q1-E1-B11

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gctgtgacaa gctaggggtg aagaaagggc cgtggacggt ggaggaagat aagaagctta 180  
gaancttcat acnaaccaat ggccattggt gctggcgtgc ttgcccgaag ctggccggtc 240  
tccgtcgcgtg tggaagagc tgccgcctcn ggtggactaa ctatctccgg cctgacttaa 300  
aacgaggcct tctcncgcgt gatgaacaac ancttggtcat agatcntcat gctaactctg 360

<210> 3343  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-074-Q1-E1-E2  
<400> 3343

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gaaacttctc aattacatca ctagacatgg tcatggctgt tggagttctg tccctaaact 120  
cgcaggtttg caaagatgtg gaaagagttg tagacttagg tggataaatt atttgagacc 180  
agatttaaag agaggagctt tctctcaaga cgaagaaagc ttgatcattg agctccatgc 240

tgcattaggc aacagatggt ctcaaatcgc aacgcgggta ccggaagaa cagacaacga 300  
gatcaaaaac ttttggaact catgtcttaa gaagaagctg agaagaaaag gcattgaccc 360  
aacaacacat aaacccttaa taacaancca gcttcaatct cctaacgtca taaatnag 418

<210> 3344  
<211> 457  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: 39-LIB22-072-Q1-E1-B4  
<400> 3344

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caaccagttt gggatgacaa actccgttga tgctggatgt aatgggtatc agtatttcag 180  
ctctgaccag ggtagtaatt ctttcgattg ttcggagttt ggttggagcg atcaagctcc 240  
gataactccc gacatctctt ctgcggttat caacaacaac aactcagctc tgttctttga 300  
ggaagccaat ccagctaaga agctcaagtc tatggatttc gagacacctt acnacancac 360  
tgaatgggac gcttcactgg atttcctcaa cgaanatgct gtaacgactc angacaatgg 420  
tgcaaacctg tggacctatg gagtattgat gaaantc 457

<210> 3345  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 3345

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cgagaacgcg ttggagaagt atccgtcgta cgagatcgat tgggattcga ttcttcagtg 180  
ttcgagtctt gtaaattaga tgttgccata ggggtatttt agggacttta gagctctctg 240  
cgatggagtt tttggtcatt gcagagattt tattattatt aaggggggtt gttatgttaa 300

tatcaaataa gtttatctac tttgatgtta attagtgtta atctctgcgt cggccaagc 360  
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<210> 3346  
<211> 258  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-004-Q1-E1-G12

<400> 3346

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnncca aattttcaat caataatttg gtaatcttca gaattatctt gtcnnnnnnn 240  
nnnnnnnnnn nnnnnngg 258

<210> 3347  
<211> 449  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-076-Q1-E1-D6

<400> 3347

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tggccttaga tcaatctttt gaagatgctg ctttacttgg agaactctat ggagaagggtg 180  
cattttgttt caagagcaag aaacctgaac ccattacagt ctcggttcct tctgatgata 240  
ctgatgattc gaattttgac tgcaatatct gcttagactc ggtgcaagaa cctgttgtga 300  
ctctctgtgg tcacctcttt tgctggcctt gtattcacia atggcttgat gtacaagagc 360  
ttctcaacaa gtgatgaata ccagaagaca tagganagtg tcctgtttgt aaatctaaaa 420  
gtttctcatt ccnacttttg ttcctttgt 449

<210> 3348

<211> 447  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-082-Q1-E1-F3

<400> 3348

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cttcaacgcc cgatctaaat ctccaatcgt gtcggagatt aaaagcagag gttttgtggg 180  
gaatcatgtc tgatgtccct tcttgttcta ncggtaatga tacaacaac aatgattcga 240  
gtaacttcga atgtaacatc tgcttagact tggntcaaga tcctattgtc actctctgtg 300  
gncacttggt ctgttggcct tgtttataca aatgggtcca tctccattct caatcnaagg 360  
actgtcctgt ttgcaaaagc cgtgatcnaa gaagacagat tggttccttt gtacggtaga 420  
ggtaaancgt ctgctgaccc tcgggtcc 447

<210> 3349  
<211> 481  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-H2

<400> 3349

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cgacgtcggt gcgtctctca agaatctgca acttaataaa gtnnagtcct ccccttnctc 180  
gtcatacaac aatcnaatcc gnagnnancg nttccggn tn cggnncccc cttgnttcgg 240  
ttttgggtcc tggtttcct accttaccaa ctacaccgac ccgacctggt tttatgaaca 300  
tttggganaa tggcttgag gaagaaccgg cgatggaacg ggtcgagtcg ggtcgtgaac 360  
tgcgagcgca gctgttcgan aagctgagca aagagaattg catgggtcgg attgaaccgg 420  
atccggatna gggagcgggt gatactcctg atgtcnggtg ggtctctgaa cttgggttatg 480  
t 481

<210> 3350  
 <211> 824  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: 31-LIB22-084-Q1-E2-H3

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angcttggtt ttaaatacgg tccaagaaac tggacagtga ttagcanatc tattccccgt 240
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cggccgtttt cggtcgagga agacnaaanac gatngcacgt gtcacgctc agttcggtaa 360
taaatgggag acgattgctc gtcttctcaa cggtcgtacg gacaacgccg tnaagaatca 420
ctgggaactc gacgctcaag aggaaatgcn gcggttacga ccatcggggt tacgatgggt 480
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tggtgcttta catgaanccc aaggaaagcc caactgggat ntgaatgtca gttattcaag 600
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tgctgttgtn ccnaccggtt tcctatcnaa acgttcgtcc ttccttccga atgattcaac 720
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 <211> 466  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: 57-LIB22-072-Q1-E1-G11

<400> 3351

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aatggctgat aggatcaaag gtccatggag tcctgaagaa gacgagcagc ttcgtaggct 180  
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 ggcgacgatt gtcgtcttc tcaacggtcg tacggacaac gccgtgaaga atcactggna 420  
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<210> 3352  
 <211> 484  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-027-Q1-E1-E1

<400> 3352

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 tgtccaatga cataagacaa gtcgtatac gactttctga actggaagag aaatcaagga 240  
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 atatcagaaa ggcataatagg aaggccgcac tcaaacaatca tcccgacaag gctggtcagt 360  
 ctttgacaag aaacgaagac taaagatgag angttatgga aggagatagg ggaaagaatg 420  
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<210> 3353  
 <211> 449  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-009-Q1-E1-A5

<400> 3353

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 tcnagacgga ggaagtagta tgatggaagc tttggctgag ttacaacgtt atcttccgtc 240  
 aaacgaaccg gatccggatt cagatccgga tctctcgggt ccggattcac caatcgatgc 300  
 ttatacatgc gatcattttc ggatgtatga gtttaaagt agacgttggt ctcgtggccg 360  
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<210> 3354  
 <211> 476  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 gtgaagagag agttactccg cttactgtg ctggtgctgg ctgttctgtg aatatgattg 240  
 aagtcacaa tgtcttgctt gatgcttctg ctttggttaa ctctgttgat gctaattggga 300  
 atcaaccttt ggatgtgttt gttcgagttt cgagggttgt ggctagtccg aggaggaaag 360  
 cggttgagtt gttgctgaga ggaggangtg ttggaggatt gatcgatgaa gcggttgaag 420  
 aagagatnaa gattgtctct aaatatccaa ctgatgcctc cttaacggga taaaaa 476

<210> 3355  
 <211> 472  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-016-Q1-E1-B9  
 <400> 3355

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 agatggatct gactgatcaa caattgaagc cttgcaaagc tggttatcan atttgtgttt 240  
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 cttgtcgcac tcnatatgac atngaaaanga ttgtagggat gactgttaat tgtgacagtc 360  
 tggcttctga aggcaatatg gancgcaaga agattcanaa gtcaaatca aaatcttctg 420  
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 tcatgttggt gaggaacatg agatgaaaga tgaagatgat gtggaagaag gagagaacct 180  
 tcctcccggt tcgtatgaga tattgcagct tgagaaagaa gagattctcg caccgcatac 240  
 tcacttctgc acgatatgtg gcaagggtt caagagagac gcgaatttga ggatgcatat 300  
 gagaaggcat gganatgagt acaaaacagc agctgctctg ggcgaaaccg acaaaggaa 360  
 tccgtaaccg ggtctgaacc gatgctgatn aagaagtacc cgtgccaatc ctttggttca 420  
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 tgatgatctt gactcgttca agagagaggt tgaagagaaa gggcttgatt tggatgagtc 240  
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 tttaatgggt gcagctatgt atggaagcat aaaggttttg actttcatcg tttccactgg 360  
 aaaatctgat gtgaacagag cttgtggtga agagagagtt actccgcttc actgtgctgt 420  
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 ttgttgcttt tttttgcat gggagttgat gagctgtctc acctcaaatt ctctcttctg 180  
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 ggttttgagg agaggacgcc tcttatgatt gctgccttgt ttggaagcaa agaggttgtt 360  
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 <223> unsure at all n locations  
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gattgtangg atgacagtca gctgtgaaag gttgggttgct gaattttaca ttgaccggaa 180  
aaagtcacag aaggcgaagc ctaaacctgc ggagggaagg aaagatctaa ctgggtgtgag 240  
agttattcag agaaacttgg tttaacgttat gancttgcct tttagacctgc cagatgaaga 300  
tatgtttcag cgaagagaat acttttggtca atatgggaaa gtcgtcaaag taccaatgtc 360  
tcggactgca gctggggctg tccaacaatt tccaaaacaa tacttgcaagt gtntataatt 420  
acttacccaa anaagangga ancgantcca agttaccga ttaattacat ggattaatat 480  
ttggatggta agaaaatttg na 502

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<213> Arabidopsis thaliana  
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agaaatcagc tttccagggc aacattttgc gactgatccg taatgagatt gactacgaac 180  
tcgatcactc gcctcctctt cagcctccta acagttttgg tccattcact gtggatgaac 240  
ggcctggaga gcagtggatt agcttgaaaa ggaattttgg ggataaagaa gacatcaaaa 300  
ttgaagcaac tatgtttgat agatcagttc ccacgtcaaa atctaccaa actgaacctg 360  
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tccaatggtg gctccggagg aaataccaac aacacggcta cgatggaaac tagaaaggcg 180  
 aggccacaag agaaagtaaa ttgtccaaga tgcaactcaa caaacacaaa gttctgttat 240  
 tacaacaact acagtctcac gcaaccaaga tacttctgca aaggttgtcg aaggtattgg 300  
 accgaagggtg gctctcttcg taacgtccca gtcggaggta gctcaagaaa gaacaagaga 360  
 ttctctacac ctttagcttc accttctaata cccaaacttc cagatntaaa cccaccggat 420  
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 nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 180  
 nnnnnnnnnnn nnnnggcacg gggtacatat gggattttcc tctgcatcga ttgttcagct 240  
 actcaccgga atcttgggtg tcatatcaag cttcgtcaga tcaacgaatt tagactcttg 300  
 ggagcccgga gcagctcaag ggacaatgat gtttnggtgg gtaacaaacg tgcccaaagg 360  
 tttccttcaa agcaacaatg gatgggactg aatgggtggca aaantgaaac naaatntaat 420  
 tcaanaactg ccgaattgta accgna 446

<210> 3363  
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 <213> Arabidopsis thaliana  
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 <400> 3363

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gtcgaattca tgaggcagaa atcagaagac ggagcttccg ccacgtgtct cctcgaattc 180  
gccgtctgtg atgatctttc atcggtttaag agagagatcg aagagaatcc atcggcggag 240  
attgatgagt caggggttttg gtattgcaga cgggtcgggt ctaagaagat gggttttgaa 300  
gaaagaacac cacttatgga tgctgctatg tatggaagca tggaagtgtt gaattacata 360  
attgccacag gaagatccga tgtgaacaga gtttgcagtg acgagaaagt cactgctctt 420  
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<210> 3364  
<211> 371  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-085-Q1-E2-B1

<400> 3364

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ctaacagaag tcgaattcat gaggcagaaa tcagaagacg gagcttccgc cacgtgtctc 180  
ctcgaattcg ccgcctgtga tgatctttca tcgtttaaga gagagatcga agagaatcca 240  
tcggtggaga ttgatgagtc aggggttttg tattgcagac gggtcgggtc taagaagatg 300  
ggttttgaag aaagaacacc acttatgggt gctgctatgt atggaagcat ggaagtgttg 360  
aattacataa a 371

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<211> 409  
<212> DNA  
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<223> Clone ID: LIB22-058-Q1-E1-B11

<400> 3365

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ctcatctaaa accctaacag aagtcgaatt catgaggcag aaatcagaag acggagcttc 180  
cgccacgtgt ctctcgaat tcgccgcctg tgatgatctt tcatcgttta agagagagat 240

cgaagagaat ccatcgggtgg agattgatga gtcaggggttt tggatttgca gacgggtcgg 300  
 gtctaagaag atgggttttg aagaaagaac accacttatg gttgctgcta tgtatggaag 360  
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<210> 3366  
 <211> 400  
 <212> DNA  
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 ccctaacaga agtcgaattc atgaggcaga aatcagaaga cggagcttcc gccacgtgtc 180  
 tctctgaatt cgccgcctgt gatgatcttt catcgtttaa gagagagatc gaagagaatc 240  
 catcgggtgga gattgatgag tcaggggtttt ggtattgcag acgggtcggg tctaagaaga 300  
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 <212> DNA  
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 ataacaagc aagagaagca atgggactat catattcatc aaaccaaca ccgtagata 180  
 acgaccagaa gaaaccttct cctgcaacgg ctgtgacaag gccacagcct ccggagctag 240  
 ctctcaggtg tccacgttgc gactcaacan acacaaagt ttgttactac aacaactaca 300  
 gtctcactca gcctcgctac ttctgcaaat catgccggag atattggact aaaggtggaa 360  
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ctgcaagaag cctcagaacc a

441

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<211> 411  
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<223> Clone ID: LIB22-068-Q1-E1-C6  
  
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catcatcatg atcaatacca acatcagatg atgactagta ctaacaataa ttcctataac 180  
accatcgtca caacacaacc accatcaaca acaacaacaa tggattcaac aacagcaata 240  
actatgataa tggatgacga taagaagttg atgacgacaa tgagcactag gccgcatgaa 300  
ccaagagact gtccaagatg caactcaagc aacaccaagt tttgttatta caagaactac 360  
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<212> DNA  
<213> Arabidopsis thaliana  
  
<223> Clone ID: LIB22-058-Q1-E1-C10  
  
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gaaacataaa agaagtatgg gtactcacat tgatatcaac aacttaggcg gcgatacttc 180  
tagaggggaat gagtcaaagc cattggcgag gcagtcttcg ttatattcct taacgtttga 240  
tgagcttcag agcacattag gtgagccggg gaaagatttt gggctctatga atatggatga 300  
gttactcaag aacatatgga ctgctgagga tactcaagcc tttatgacta ctacatcttc 360  
ggttgcagcc ccgggaccta gtgggtttgt tccgggagga aatgggtt 408

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<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 cttcgacggc agattttctc gcgagaagct cgccgaaggt caagctggag aagatggatc 180  
 cggagtcgcc aactcgagc gagctctaaa ttcaatagac ggtcagatct ctgcttttgt 240  
 tgctgcggaac caaccaattt gggctgatcc tgcagattca gctgctttcc tcgacacaat 300  
 cgatgagctc gttgcaatca ttagagagtg gagtcncatg gcttcagaga aacctatcgg 360  
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 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
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 aatttgatcg tctgaattc atcgtcctat ttaaggtttc gatcacaatc tgaagaggat 180  
 gtcattggacg tttctgctaa aaagtcacaa aaagctgggc gcgaaaagtt gaggagggaa 240  
 aaactgaatg agcattttgt tgaactggga aatgtactcg atccagagag acccaagaat 300  
 gacaaagcca cgattctgac tgatactgtt cagttgttga aagagctcac atctgaagtc 360  
 aacagactga aatctgagta caacgcattg acagatgagt cccgcgagtt gacaca 416

<210> 3372  
 <211> 171  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-036-Q1-E1-C10



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cgaccgcgga gctggagagt tatcgggtct taagtggaag cttgaccgga a 171

<210> 3373

<211> 420

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-019-Q1-E1-D8

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attcgggtca aacacaattc gaaaacaaaa gaaagagggtc gatgggtttt aacgaagata 120  
aagttctatc attcggagat aaaaccgccc gagaatcaga tcaactccgat ctagaagctt 180  
ccgtcgtgaa agaagtagca gtagagaaac gtccaaagaa acgaggaaga aagccagcaa 240  
acggtagaga agagccacta aaccacgtcg aagcagagag acaaagacgc gagaaactaa 300  
accaaagatt ctacgcgtta cgagcgggtt gtacaaacgt ttcaaaaatg gataaagctt 360  
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<210> 3374

<211> 410

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-038-Q1-E1-F9

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ttgatccctc tggaaaagga ggggagaata gcagttcatg atgggatttt gtatctgccc 180  
gttggagtca cctgcgagat tactatggag tacaagcttc ttccgccata agatcatgat 240  
cttctaatec ttctacttc ttccatctt tttaatcacc ttctcgctat ctctgcttcc 300  
tctttctctc tgtttctctt ttctcagaac tcagaagtag ttgttggttt atttctgttg 360

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<211> 390  
<212> DNA  
<213> Arabidopsis thaliana  
  
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ttgttgtaat ttcaaaactt cataagaatt tctctgataa taaagaaaaa gctggagtag 180  
aactatttta aagtgtcatc atgaagagac taagcagctc agattcaatg tgtgggtctaa 240  
tctccacttc tacagatgaa cagagtccaa gagggtagcg aagtaattac caatctatgc 300  
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tgggtctatc ggagaagaag agaagattaa 390

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<211> 426  
<212> DNA  
<213> Arabidopsis thaliana  
  
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gatgattcat gcaacacagg tcttgttctt ggttttaggcc tctcaccaac gcctaataat 180  
tacaatcatg ccatcaagaa atcttctctc actgtggacc atcgtttcat caggctcgat 240  
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ggcgaacaaa tttgccggca gacctcgtcc cacagcggca tctcatcttt ctcgagcgga 360  
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acggat 426

<210> 3377  
 <211> 395  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-067-Q1-E1-H9

<400> 3377

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ccgtacgctc atcncggaga aaaagctcgc cggag 395
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<210> 3378  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-062-Q1-E1-G5

<400> 3378

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gttcttggtt taggcctctc accaaccgct aataattaca atcatgccat caagaaatct 180
tcctccactg tggaccatcg tttcatcagg ctcatccgt cgttgactct aagcctatcc 240
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tcgtcccaca gcggcatctc atctttctcg agcgggaagg taaagagaga aagagaaatc 360
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<210> 3379  
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 <212> DNA  
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<223> Clone ID: LIB22-025-Q1-E1-F10

<400> 3379

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ttgttcttgg tttaggcctc tcaccaacgc ctaataatta caatcatgcc atcaagaaat 180  
cttcctccac tgtggaccat cgtttcatca ggctcgatcc gtcggtgact ctaagcctat 240  
ccggtgagag ctacaagatc aagactgggtg ccggcgccgg cgaccaaatt tgccggcaga 300  
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<210> 3380

<211> 444

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-013-Q1-E1-D10

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aggacaccct gacaagcttt gcgaccagat ctctgatgca gtccttgatg cctgccttga 180  
gcaagaccct gatagcaaag ttgcttgtga gacatgcacc aagaccaaca tggatcatggt 240  
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ccgttccatt ggattcatct ctgacgatgt tggctttgat gctgacaaat gcaaagtcct 360  
tgtaaacatt gaacaacaga gccagacat tgctcaaggt gttcacggtc actttcacia 420  
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<210> 3381

<211> 421

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-004-Q1-E1-E12

<400> 3381

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gacaagcttt gcgaccagat ctctgatgca gtccttgatg cctgccttga gcaagaccct 180  
gatagcaaag ttgcttgtga gacatgcacc aagaccaaca tggatcatgg tttcggtgag 240  
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gttcattggt attcatctct gacgaagttg gtcttgatgc tgacaaatgc aaagtccttg 360  
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 cgttccattg gattcatctc tgacgatgtt ggtcttgatg ctgacaaatg caaagtcctt 360  
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 aggacacca gacaagcttt gtgaccagat ttctgatgag atccttgatg cttgcttaga 240  
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tgatgggcaa tgatgatgag actaagaaat ggcattgtcta tgctgcctct gccaggact 360  
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<223> Clone ID: LIB22-005-Q1-E1-A7

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tgagctctct ctgagtgtca agtctgtgaa gtacactcgc ggctccttcc tctgccccgg 360
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<223> Clone ID: LIB22-042-Q1-E1-E5

<400> 3415

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tattttacga agctcccctc ggttacagca ttgaagacgt tcgtccaaac ggtggaatca 300
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gcaccgatct tcataatata gttatagctt tctttacttt ccagtttata attttcctct 420
ttcaaagctc cctt 434
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<211> 426  
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<223> Clone ID: LIB22-041-Q1-E1-F12

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ttgatatctg gagaaagggg tttctggaaa caaggagttc ataattcgcg atcttgatct 180
atcgatcttc atttatatat aaaagcgtga atgagattat gatggagtcg aaaggtggta 240
aaaagaagtc cagcagtagt agttccttat tttaagaagc tcccctcggt tacagcattg 300
aagacgttcg tccaaacggt ggaatcaaga aattcaaata ttctgtctac tcaaactgct 360
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<223> Clone ID: LIB22-050-Q1-E1-E6

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cgttcgcca aacggtggaa tcaagaaatt caaatcttct gtctactcaa actgctccaa 360
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<213> Arabidopsis thaliana

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tctggagaaa ggggtttctg gaaacaagga gttcataatt cgcgatcttg atctatcgat 180
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agtccagcag tagtagttcc ttattttacg aagctcccct cggttacagc attgaagacg 300
ttcgtccaaa cggtggaatc aagaaattca aatcttctgt ctactcaaac tgctccaaga 360
ggccatcctg agtaccagcg tgcaccgatc ttcataatat agttatagct ttctttactt 420
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<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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<400> 3419

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acaagctttg tgaccagatt tctgatgcga tccttgatgc ttgcttagag caagatcctg 240
aaagcaaagt ggcgtgtgag acatgcacca ngaccaacat ggtgatggtg tttggtgaga 300
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<211> 374

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-083-Q1-E2-D1

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tctacttctc tcaacagaaa tggaaacgtt cctatttacc tctgaatccg tcaatgaagg 180  
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aaaagcgtga atgagattat gatggagtcg aaaggtggta aaaagaagtc cagcagtagt 240  
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<213> Arabidopsis thaliana

<223> Clone ID: LIB22-082-Q1-E1-A11

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ggacaccag acaagctttg tgaccagatt tctgatgcga tccttgatgc ttgcttagag 240



caagatcctg aaagcaaagt ggcgtgtgag acatgcacca agaccaacat ggtgatggtg 300  
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<223> Clone ID: LIB22-036-Q1-E1-F10

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<223> Clone ID: LIB22-039-Q1-E1-B12

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<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-052-Q1-E1-C3

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<223> Clone ID: LIB22-022-Q1-E1-D6

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 cctaagaagt accacaagat gaaggagaga cttgttgggtg tctctgagga aactaccact 300  
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<223> Clone ID: LIB22-082-Q1-E1-E11

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tttccactca agaccacgcc gccgcaacca tcgctcgtga ctccgccgct gttttcgctt 360
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gtggctctga tctgattggt gatgatgggtg gtgacgctac tcttttgatt catgaggggtg 360  
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<213> Arabidopsis thaliana

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<210> 3456

<211> 436

<212> DNA

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<212> DNA

<213> Arabidopsis thaliana

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<400> 3459

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gctcgccgaa gttgagatgc ctggactcat ggcttgctgt accgaattcg gaccttctca 180



gccattcaaa ggcgctagaa tcaccggatc ttttcacatg accatccaaa ccgccgtact 240  
catcgaaacc ctaactgctc tcggtgctga agtcagatgg tgttcctgca acatcttttc 300  
cactcaagac cagccgccg cagccatcgc tcgtgactcc gccgctgttt tcgcctggaa 360  
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<210> 3460  
<211> 459  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 3460

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ttcggtcgctc tcgaactcga gctcgccgaa gttgagatgc ctggactcat ggcttgctgt 180  
accgaattcg gacctttctca gccattcaaa ggcgctagaa tcaccggatc ttttcacatg 240  
accatccaaa ccgccgtact catcgaaacc ctaactgctc tcggtgctga agtcagatgg 300  
tgttcctgca acatcttttc cactcaagac cagccgccg caagccatcg ctcgtgactc 360  
cgccgctgtt ttccccgga aanggggnaa ccctcaaggn ntacgggggg gtgttccgaa 420  
nggtgcncaa aattgggggc aaggtggggg gccngatt 459

<210> 3461  
<211> 447  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 3461

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gggatctaag ctcttttcat cgaacatgcc ttgctctact gttcctagac gcacaagaag 180  
atcacactgc ttgtcttctg ctaaagatat gagctttgac catatcccta aacaatttcg 240

tggagacaat ctcaaagacg gagtgatgca gaacttcaag aacgtaccac aatattttta 300  
 cgggcttaat tcagctcaaa tggatatgtt catgacagaa gatagccctg tccgtangca 360  
 agcgggaaaa agttacaaga gggaaagcat ctccgtccta aaaaataacn atttgaaaaa 420  
 aggggggggaa atagggatta ttccggg 447

<210> 3462  
 <211> 447  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-H7

<400> 3462

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 agagagagag atttaaggaa ggaatcatgg caggggggtgg agctccagca cccaaagcag 180  
 acgaaccaca accacatcct cctaaagatc aacttcccaa catttcttat tgcataccca 240  
 gtctcctcc ttggcctgaa gctattcttc ttggattcca acattacctt gtgatgcttg 300  
 ggacaacggt gctcatacct actgctcttg ttccccagat gggagggtgga tatgaagaga 360  
 aagcaaaggt gattcaaact aatctctttg gttgccgggg atcaaaaanaa tggnccaaaa 420  
 annntgtttc gggaaaaaaa tttncgg 447

<210> 3463  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-089-Q1-E1-H9

<400> 3463

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 cgcggtggcg gaagatgtgg agagaagcaa aaccacggtg ttatgggcgg cgcgtaactt 120  
 ttccggcaag aagatttgct tgctttatgt tcatacgaact gctcgcgctg cctcctggac 180  
 gcacaagaaa cttgttggtg gtagctttaa aaagcatgat gtcaagggtga ttgagcgagt 240

tgagaaaccc aaagtggatg aactgatgaa ttcttatctc caacttttat ctgaaactga 300  
gattcaaaca gataaacttt gcattgctgg gcaaaatata gaggaatgta tcgtagaact 360  
aattgctcgg cacaaaatta aagttgggta gtaatgggga actgcatcaa at 412

<210> 3464  
<211> 119  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-047-Q1-E1-A5  
<400> 3464

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agtggccgtg aatacaagggt caaagacaat tctcaaagcc gattccggcc tctcgaact 119

<210> 3465  
<211> 378  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-066-Q1-E1-C5  
<400> 3465

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aaaaggcgtt gttcgtcaag aagacctcaa gtggctcgtga atacagtgtc aaagacatgt 120  
cacaagccga tatcggctgt cacgaactcg agctcgccga agttgagatg cctggacaca 180  
aggcttgctg taacaaagtc agagcttctc agccagtcac aagcactata atcaccggat 240  
ctcgtcacat gagcatccaa aacgacgtag tcaacgaaac ccgaaatgct ctcaagtgtg 300  
aagtcagatg gtgtacttgc aacaacgttt caagtcaaga aactccggc gcaggtatcg 360  
ctcgagacac cgcagctg 378

<210> 3466  
<211> 326  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-003-Q1-E1-E4  
<400> 3466

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 aatacgggggt cagagacatg tctcaggccg ttttcggtcg tctcgaactc gagctcgccg 120  
 aagttgagat gcctggactc atgggctgtc gtaccgaatt cgggccttcg cagccattca 180  
 aaggcgctag aatcagcgga tctcttcaga tgacgatcaa aaccgccgta ctcatcgaaa 240  
 ccctaagctg ctctcggtgc tgaactcaga tgggtgttct gctagatcat ttccactcaa 300  
 gaccacgccg ccgctagcat cgctcg 326

<210> 3467  
 <211> 346  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-052-Q1-E1-B2

<400> 3467  
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 gagatgcctg gactcatggc ttgtcgntac caaatccgga ccttccaagc aatcaaaagg 180  
 cgccagaatc aacggggttc ctcaaaataa caaccaaacc ggcgttatca accaaaacct 240  
 aactgggtccc ggtgcgaag tcaaattggg gtcttggaac aacctttcca atcaagaaca 300  
 agccggcgga accatcgctc gtgactccgc cgctgttttc gcctgg 346

<210> 3468  
 <211> 188  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-065-Q1-E1-C12

<400> 3468  
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 gatttcggtc gtctcgaact cgagctcgcc gaagttgaga tgcttgact catggcttgt 180  
 cgtaccga 188

<210> 3469  
<211> 275  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-040-Q1-E1-A8

<400> 3469

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taattcacac atggcgttgt cccgcgacaa catctcaagt gggctttaat acaaaggcat 120  
ttacatgtca caatccgaat tctggcctct cgaagtcgag ctcccccaag ttgacatgcc 180  
tggactcatg gcatgtcgta acgaagtctg accttctcag gcattcaaaa gcgctagaat 240  
caccagatct cttcacatga ccatccaaaa cggcg 275

<210> 3470  
<211> 353  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-029-Q1-E1-A10

<400> 3470

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gaagacctca agtggccgtg aatacaaggc caaagacatg tctcaagccg atttcggctc 120  
tctcgaactc gagctcgccg aagttgagat gcctggactc atggcatgtc gtaccgaatt 180  
cggaccttct cagccattca aaggcgctag aatcacccga tctcttcaca tgatcatcca 240  
gaccgccgta ctcatcgaaa ccctaactgc tctcgggtgt gaagtcagat ggtgttcctg 300  
caacatcttt tccactcaag accactccgc cgcaaccate gctcgtgact ccg 353

<210> 3471  
<211> 348  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-073-Q1-E1-F7

<400> 3471

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cctcaagtgg ccgtgaatac aagggtcaaag acatgtctca agccgatttc ggctcgtctcg 120

aactcgagct cgccgaagtt gagatgcctg gactcatggc ttgtcgtacc gaattcggac 180  
 cttctcagcc attcaaaggc gctagaatca ccggatctct tcacatgacc atccaaaccg 240  
 ccgtactcat cgaaacccta actgctctcg gtgctgaagt cagatgggtg tcttgcaaca 300  
 tcttttccac tcaagaccac gccgcccga gccatcgctc gtgactcc 348

<210> 3472  
 <211> 366  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-055-Q1-E1-B5

<400> 3472

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 ctcaagccga ttteggctgt ctcgaaactcg agctcgccga agttgagatg cctggactca 180  
 tggcttgctg taccgaattc ggaccttctc agccattcaa aggcgctaga atcagcggat 240  
 ctcttcacat gaccatccaa accggcgctac tcctcgaaac cctaagtgtc ctcgggtgctg 300  
 aagtcacatg gtgttctctg aacatctttt cactcaaga ccaggcggcc gcagccatcg 360  
 ctcggtg 366

<210> 3473  
 <211> 346  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-008-Q1-E1-F9

<400> 3473

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 gttgagatgc ctggactcat ggcttgctgt accgaattcg gaccttctca gccattcaaa 180  
 ggcgctagaa tcaccggatc tcttcacatg accatccaaa ccgcccgtact catcgaaacc 240  
 ctaactgtc tcgggtgctga agtcagatgg tgttctctga acatcttttc cactcaagaa 300  
 cacgcggccg cagccatcgc tcgtgactcc gccgctgttt ttccgc 346

<210> 3474  
 <211> 474  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-089-Q1-E1-H2  
  
 <400> 3474

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catgctcttg ctccgccgct gcagcttcac gacggcgacg ctttgaaacg ccgtcctgaa  120
ttggattctg ataaggaaat gtctgcagct gttattgagg gaaatgacgc tgttactggg  180
catatcattt ccactactat tggaggcaaa aacggcgaac caaagcagac cattagttac  240
atggctgagc gggttgttgg aacaggttca ttcgggattg tttttcaggc gaaatgcttg  300
gaaactggag aatcagtagc cattaaaaag gtcttgcaag atcgacgcta taaaaaccgt  360
gagtttcaac taatggcgaa caaanggttt ncccaaattg canccccttg aaancacngt  420
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<210> 3475  
 <211> 364  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-068-Q1-E1-B11  
  
 <400> 3475

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aatcaaggaa ggtctccatc tcgctcacat taagtaccac acgatgaacg acagacttgt   60
tggtgtctct gaggtaacta ccagtgggtg caacacgctt taccacacgc agcaaaatgg  120
aagtctcttg ttccctgcc a ttaccctaaa cgacactgtc atcaagagca agttcgacaa  180
cttgatatgg tgccgtcact cactcgatga tgggtctcaga aagggcactg atgtcatgat  240
agctggaaag gttgctatta tcagtggata tgggtgatgtt ggaaaggggt ctgctgctgc  300
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cgct                                         364
  
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<210> 3476

<211> 365  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-029-Q1-E1-F1  
 <400> 3476

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cgagaagacc tcaagtggcc gtgaatacaa ggtcaaagac atgtctcaag ccgatttcgg   120
tcgtctcgaa ctcgagctcg ccgaagttga gatgcctgga ctcatggctt gtcgtaccga   180
attcggacct tctcagccat tcaaaggcgc tagaatcacc ggatctcttc acatgaccat   240
ccaaaccgcc gtactcatcg aaaccctaac tgctctcggt gctgaagtca gatgggtgttc   300
ctgcaacatc ttttccactc aagaccagcg cgccgcagcc atcgctcgtg actccgccgc   360
tgttt                                                                 365
  
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<210> 3477  
 <211> 378  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-083-Q1-E2-G5  
 <400> 3477

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aagccgattt cggtcgtctc gaactcgagc tcgccgaagt tgagatgcct ggactcatgg   180
cttgctgtac cgaattcgga ctttctcagc cattcaaagg cgctagaatc accggatctc   240
ttcacatgac catccaaacc gccgtactca tcgaaaccct aactgctctc ggtgctgaag   300
tcagatggtg ttcttgcaac atcttttcca ctcaagacca cgccgccgca gccatcgctc   360
gtgactccgc cgctgttt                                                                 378
  
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<210> 3478  
 <211> 424  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-G7



<400> 3478

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ttcaaaatgg ttcattctcaa agaatgcaat tgtctcaggg ctactcggga agaagcaaga 180  
anattcantt tcagattctc cacctccaaa ggctcggcga aaaaggatag tgaggaagaa 240  
gggtggctgca tctgcctctt aaataaccaa catnacctct aaaatgtcac aattttcana 300  
gtccatggaa gaacaacagt gaggttttgt tgttcatttg aggcacacat gacaaagggt 360  
ttgttgccat angaaggaag aagggatcac caaactttgg aggaattgaa aaaaagctcn 420  
atag 424

<210> 3479

<211> 479

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-088-Q1-E1-G8

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ttacaatatg aanaaaagaa gctcgaagct gagatcagag aacttgaatc tacaccaaag 120  
agtagcctta gtttcagcaa agattttgat cgtgatttac ttgttctgt cacaaccaag 180  
aagatgaagc agcttgattc tggttcttcc acttctctca tcgaagttct cganttgaag 240  
gtaacattca tgggagagag gacaatggtg gtgagtgtaa catgtaataa gaggacagat 300  
acaatggtga aactgtgtga agtctttgag tcattgaatc tcaaaatcct cacttccaat 360  
ctcacctctt tctctgggca tgatcttcca cactgtcttt attgaggcgg atgaagaaga 420  
acaagaggtg ttgcggttaa aaatagaaac aggaatagga gcttataaat gaaactcaa 479

<210> 3480

<211> 449

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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<400> 3480

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gaaggatcta agatagttaa ggcgtttaga aaccttcctg gtgttgagct ttgtcatgtg 120

gagaggntta atttggtgaa gcttgctcct ggtgggcacc ttggtcgggt tgtgatctgg 180

accaagtctg cctttgagaa gcttgagtct atctatggtt cgtttgagaa gccatcagag 240

aagaanaagg ggtatgtgct tcctcgtgca aagatggtga atgctgatct tgccaggatt 300

atcaattcag atgagattca gagtgttgtg aatccgatca acaangatgc gaagagggct 360

gttcttaaga agaatccatt gaaagaaatc tcaatgtgat gttgaagttg aatcccttat 420

gccaaagaac cgcgaaagan gatgtcact 449

<210> 3481

<211> 452

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-088-Q1-E1-H11

<400> 3481

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atttcctct gattagatcc cttancccgaa caaagacacn acaattcttg anggcgacag 120

agctgattga tgtctttggt atctggagcc agggacangg ggttnnnnnn nnnnnnnnnn 180

nnnnnnnnnn nnnnggatgg agatgatgng aactcctcct ccagaacaag agccgacnac 240

gatgctenta gtcgacanat gancgaatct tctctttgtg ctaccgagga ggaagaagac 300

gacgattcca aattgcaatt gggtcctcag tacactatca ngagaacatc tcgagaagga 360

caangatgat tagagtctga ngaaatggaa ggaacagctt ctcggaagtg ttgatgtcac 420

caacattggg gagactcttg attcggaag tn 452

<210> 3482

<211> 454

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-088-Q1-E1-H2

<400> 3482

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ttgtgtaaag gtagccctga tgcctttctt gtgtgcaatg gattcaaaga tgctgagtat 120

atatcattgg ctctgcttgg gagaaaactg gcgttgaata ctgtgattgt gcttgagcaa 180

gaagaagagc ttgatctggg tattgagctg agccagaaga tgaatgtgag gcctgtcatt 240

gggttaangg ctaagctgag gactaagcat tcgggtcatt tcggatcaac ttctgggtgaa 300

aagggtaaat ttggattgac tactactcag attgttcgtg tgggtgaagaa nctgcgtcaa 360

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cgttcaactt cgttgcccc cgaagggtgt tcnc 454

<210> 3483

<211> 505

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-088-Q1-E1-H3

<400> 3483

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tgtantgana agaatcatga tgagatagat tttgagtttc ttggtaacat tagagaaaaa 120

gaatggagag ttcagacaaa catttacggg aatggaagta ctcatcagg aagagaagag 180

agatataatc tctgggttga tcctactgaa gattttcatc aatacagtat cctctgggtc 240

gattctcaca tcatattent tgtagacaat gttcctatta nagagggtcan acgtactgcg 300

gaaatgggtg gtcactttcc atcaaagccc gatgtctctc tacacaacaa tatgggacgg 360

ttctaaatgg gcaactaacg gtgggaaagt acggggtaaa ctacaaatat gccgccttac 420

attgcgcggg tctcgggatc tagtccctgc aacgggctgc ccccggttga ccctaaccga 480

gcaatttccc gaaggtgcga atgaa 505

<210> 3484

<211> 418

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-088-Q1-E1-H9

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ggccccaat cccacaatct caatccttct ctcaatcgta ccacctccat taccaaattc 180  
tacacccccg tagaatcgat gggaacttct cttaaaggca aagtcaaaga acctttgtag 240  
attattcgag acttccaaac ccgttaaacc tgccttanct gagattcctc agaagcagaa 300  
atccggtaaa tcccttttac ccgaatcncg gatatcgct ttttcgagct taaacanctc 360  
ggtcatccgt cctcncggga caanaggaca ngattgtggn gtattttacc aacttgag 418

<210> 3485  
<211> 422  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-089-Q1-E1-A10

<400> 3485

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agagaaagga atcgttcgca aatggatatc aaggtttgag gtctggccgt atctagagac 180  
ttttaccgag gatgttgccg ctgaaatctc gaaagagttg caggggaagc ctgacttgat 240  
cattggaaac tacagtgatg gtaatcttgt tgcaccttg ttagcacaca aacttggtgt 300  
cactcagtgc accatcgctc atgctttgga gaagactaag tacccgatt ctgatatcta 360  
ctgggaagaa gctcgacgag aagtatcact tttcttgcca gttcacggct gatcttancg 420  
cc 422

<210> 3486  
<211> 413  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-089-Q1-E1-A11

<400> 3486

gggcataaac ccattacacc aaaacctcat cgtagagaga gaaacacacc aaccattgtt 60  
acactctaag agaagagaag agagaaggaa aaatggacgg tgtatcacca aagtttgtgt 120  
tgccggagac attcgacggc gtgaggatgg agatcacagg ccaactaggc atgatctggg 180  
agcttgtaaa agcaccagtg attgtccctc ttcttcaatt agctgtttac atctgtttgc 240  
ttatgtctgt catgctttta tgtgagaggg ttacatggg aatcgtcac gtcctcgta 300  
aactcttctg gaaaaaacca gacaaacgtt acaagttcga gccattcac gatgatgaag 360  
agcttggtag ctccaatttc cccgtcgtcc tcgtacaaat cccaagtgc aaa 413

<210> 3487

<211> 515

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-089-Q1-E1-A2

<400> 3487

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aaagatgtct gaattcgaag atcacgaggg aaacggtagc gttgctgacg cgatttacga 180  
cgaagagaat ggtggccgcg acggcgaaat cgaggatcaa ttggactcga aaccaagag 240  
agaatcgcgt gaccatgaaa gagagacatc aagaagtaaa gatagagaaa gagagaagg 300  
tcgtgataag gacagagaaa gagactctga agtctctcgc cgaagcaggg atagagatgg 360  
agaagaaaag caaggagagg agtagagaca aagacagaga tnatcntgag cgtcntccca 420  
anaattatcc ctccacangg atnataccag ggaacntgg tgaaaagaaa nanaacntgg 480  
tgggtaggga tgatgatgaa ttaccggtcg aancc 515

<210> 3488

<211> 533

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-089-Q1-E1-A3

<400> 3488

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tgctagcata cgccgccgca tccactcggt cccaggacct taccctact ccatctcttt 180

tctcttttgc cangctccag acccaaccac ttgagcttcc cgcttcttct ccttgggggt 240

tccagggacc ggagatgtgc tgctattgnc agagcttcca accacaagtt tattgtctcc 300

gccgtggccg ctgaggntga cctcgacacg gaggaggacc tgcagcaaac ngccaccgcc 360

gtccttgatc cgccaagcc taagaaagga aaagccgctt tggttctcaa ngaagagatn 420

gaacaagggc ctaanaaggt ttttgggnaa tccanaagg ctatggggaa accaaanagg 480

gngttatgat gtcaacactg ctatctcntt gcttaacaaa aactgccanc aca 533

<210> 3489

<211> 520

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-089-Q1-E1-A4

<400> 3489

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ttaacaaagt tgaggaaata cgtggcttaa ggggaagctg ggttggaccc cagatcagtg 120

ggggcacact cgtttcaaat tattcaatgg ttctgctgat atggtgacaa atcaaaaaca 180

gttgaatgca ctcatgctg cgcttttaaa gacaatgcaa gaccatgctg atgcttggcc 240

tttcaaagaa ccagtggatt ctgcgcatgt ccttgattac tatgacatca ttaaggatcc 300

cattgatctg aaghtaattg caaagagggt agagtcggaa cagtattacg tgacattgga 360

tatgtttgtt gcggatgca gacggatgtt taacaattgt agaacttaca actccccga 420

tacnattaa tacaatgtt gcnaaccaag tttggaacca ancttccatn gaaagtncaa 480

ancaggtcnc caaatcgggg gccaaaaccc aattagaana 520

<210> 3490

<211> 474

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-089-Q1-E1-A5

<400> 3490

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ttgtcgtctt tgatcacgaa acgaagtcgt gctgataaga gcaataaagg ggatcgcttt 180  
gagttagtct ttgattatct caagctactt gacctggaag aagacatttt aaagatgaat 240  
gttattcatg tcgctggtag caaaggcaag ggatccacat gtacctttac agagtctatt 300  
attcgaaact atggctttcg aactggactc ttcacttcac ctcacctcat tgatgtccgg 360  
gaaagatttc gtttggattg gtgtnggcca taanttaana naaatttttg gggaaaattc 420  
ctgggtgggtg ctataacang gctcaaggga gaaaactaac gaggagatac caat 474

<210> 3491  
<211> 428  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-088-Q1-E1-G5

<400> 3491

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caagagaaaag tttgtagcng acggtgtggt ctacnctgaa ttgaatgagg ttcttacaag 120  
agagcnagca tnggatgggt acncnggtgt ngaggttang gttactccta tgaggactga 180  
gattatcatc agagctacac gtactcagaa tgttctcggt gacaagggga cganaattan 240  
ggaattgact tcccttggtc agaananatt caagtttcca nttgacagtg ttgagcttta 300  
tgccgagaag gttaacaaca gaggtctctg tgccatcgct cangctgagt ctttacgtta 360  
caagcttctt ggtgggtctc gctgttcgta nggcttgcaa tgggtgtgtg atgtttgtta 420  
tggacagt 428

<210> 3492  
<211> 437  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-088-Q1-E1-E5

<400> 3492

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ttctagatca agaaccgggt tcaagatcac ctaaaccggg atccgaagct cctgatcaag 120  
atccgggttc gaccgggtca agaacacaaa atatgatacc gccgatgtgg gcactagcgc 180  
caacgccagc ctccacaaac ggaggtagtg ctttttggat gttaccagtc ggaggaggag 240  
gagggtccgc taacgttcag gatccatcac agcacatgtg ggcgtttaat ccgggtcatt 300  
acccgggtcg aatcgggtcg gttcagctag ggtctatgtt agtgggagggt caacagttag 360  
ggttaggtgt tgcagaaaat aacaatttgg ggctattttc cggcggagga gganacgggtg 420  
gncgggttgg ccccgga 437

<210> 3493  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-088-Q1-E1-E6

<400> 3493

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nnnnnnnnnn nnnnnnnnnn nnnnnnncaa tcggaactct cgattcgctt tcttctccgt 120  
tcttctgtgg cggaccgggt ttgtggtttt ttatttgaac attcccgatc ttgccctgag 180  
ttccacgatc agtttcttta aaccctangt ttacacaag cattctgttt ctccagatta 240  
tcncanactc tttcgttcta ntctttgtag ttttgtaaaa ggtatttcgg tagatttagg 300  
gtttgtctgt gtctagtttt cgagatcnag agagatttgt gatgaatact aanagaggaa 360  
gatatccacc ggggtgttga acnggtcatg gtgcgcctcc gaagccagat tatcatcaat 420  
cgtanc 426

<210> 3494  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana





<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-F5  
  
 <400> 3496  
  
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 ggcgctttat tctctcatcg gagcgctca cgggtggtan acggtgtcgt tgttcctctc 120  
 cnaaaacntc catcatnnac catctcttta cacagagctc taatcaaaat cttcgagaga 180  
 tggggcanag tatgagctgt ggaagtcgac cggagcacgg aatattcgcc tctgtacagt 240  
 gcggcgatat catcactatc cgtcgtgtga tggcgacgga gcctagtctg ttgaatcaaa 300  
 ntactcctta tgatcgtcac tctgttcttc aatgtcgtg ctgctaaatg gtcangatng 360  
 aagattttgt cattgctttt ggaacgattt acgaaatcca agatttggtt gnacngtca 420  
 cnaagcaaga ctccgtttaa tgtttgggct gcnatgtatt ggaaaaatc 469

<210> 3497  
 <211> 431  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-F6  
  
 <400> 3497  
  
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 tcgatttgtc ttcttcactc agtttctcgc ttgttctgtc aaagatcgaa actttccggc 120  
 gtctattgct ttcgcactat tnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnnnnnnnn nnnngatatg ttnaactacg ggaacancan ngtgggagat 300  
 canngattgg catgattttt tcaannaggt tcaantgatt gacatacagt atgataagct 360  
 agacaanctt cnaaagaaac tgcangcttc ncatgangag tcaaaaatctg tgaccaaaagc 420  
 tcctgccatg a 431

<210> 3498  
 <211> 426

<212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-F7  
 <400> 3498

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 cctcagtatc cccatccctc cgcanegtcg ttttcgctc cacgactccg gcgacttctc 120  
 accgtcggtc aatgacggtc cgatcnaaga ttcgtgaaat tttcatgccg gngttatcat 180  
 caaccatgac ggnaggcaaa atcgtgtcan ggntcaaaac agaangcgaa ganactcgcc 240  
 aagggagaga gtgttggtgt tgttgaatct gataaagccg atatggatgt anaaacgttt 300  
 tacnatggct atcttgctgc aattgctgct ggaaaagggtg aaanagtccg gttggtgctg 360  
 caattggatt gttanctgag actgaanctg agatcgaaga agctaanagt aaagccgctt 420  
 cgaaat 426

<210> 3499  
 <211> 457  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-F9  
 <400> 3499

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 ctctctcttc tcaatttccc caaatgaaat aaattcctcc gaaagtttat agatttcact 120  
 ctcccccgaa ctatacaaaa ttcctcaaa aggaaaaact aaaaagccga tcttggtttt 180  
 tttgtttctg agtgcattct gatacttgga agcattcttt ggtgaggctg attcattctc 240  
 atctgtgaaa gtctttggct tttgaagcaa tactatggaa ggaattcagc atcctatacc 300  
 tcgcactgtc gaagagggtt ttagcgactt tcgtggctgt agagctggtc tcatcaaggc 360  
 tctctctact gatgtacaga agttttacca tcagtgtgac cctgagaang aaaacttggtg 420  
 tcttaaggac ttccaaatga ngacatggga aggttaa 457

<210> 3500  
 <211> 505

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-G1  
  
 <400> 3500  
  
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 tcagattcct taaccaacaa tattacaaat aagctcctat cttctttctt tcttttagag 120  
 atcttgnaat ctctcntag ttaatcttct antgtaaaac taanatcaan agtctaaatg 180  
 gagattaacg gggcacacaa gagcancgga ggaggagtgg acgctatgtt atgcggcgga 240  
 gacatcanga cacagaacat ggtgatnaac gcggaggatt ctctcaactg gggagctgca 300  
 tcggagcaaa tgaaacggta nccatttggg tagnaattgaa aanaatggnt tgccgaantt 360  
 aangaaacca atttgttaat ccctgggggg gtgagactcc tgaaccaatt gggacaaagt 420  
 tggctgcaa ttctcaaact aattgggtaa acaatgttga aaaggtggag ctatccggag 480  
 aacagctaaa agcccngtgg tgaaa 505

<210> 3501  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-G11  
  
 <400> 3501

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 caatggttgg aatcatgtta cggatcgatc gtogaacca attgactaga tcccctcctt 120  
 gctccagcgg ttgaactggg ggctttcctg ttattagctc cagaagcaca actccaaagc 180  
 tatagatatc acatttctct gtcaccttca tcgtgtaagc atattctgaa acacagcaaa 240  
 acatcaatta gatatgttag ataagcgatt gtgggaagaa agaaaactgt gatgttttac 300  
 tcacctggag cgatgtatcc gtaagacca gcaacaagct gacatggact ttgagtaaga 360  
 gaagatnaat caacttagcc aggccaaaat ctccaacatg agccttgaaa cgttcanca 419

<210> 3502  
 <211> 426

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-G12  
  
 <400> 3502  
  
 cgtttttgca aacgaacatc agtctgaatg cgatcaagat cgtcccgggg aaatacagtt 60  
 ctctcaccga tcatcagttt cgtgcgccgt atcgaattag gtgcgccgcc gcttcacctg 120  
 ggaaaaaacg gtataacatc gctctgcttc ccggagacgg tatcggtcca gaagttatct 180  
 ctgttgctaa gaatgtgctt cagaaagctg gatctctcga aggactggag tttgatttca 240  
 aggagatgcc tgtcggagga gcagccttgg atttggttgg agttccattg ccggaggaaa 300  
 ctttcacggc tgcaaaacta tctgatgcca ttcttcttgg agctattgga gggtagaaat 360  
 gggacaaaaga atgagaaaca tctgagacct gagatgggct ctgttttacc ttanaagaaa 420  
 tttcaa 426

<210> 3503  
 <211> 440  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-G2  
  
 <400> 3503

cggccaagnc acagatctcc gtggccatct ctctctnnnn nnnnnnnnnn nnnnnnnnnn 60  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnncgtata aatcctcccc attgttgagt taattagttc ttgtaaaccc atgacgtttt 180  
 ccgtcaaagc tgaaatggaa gttctcatgg tctcagatag ccaactgttgcc ttctgtcatt 240  
 gttctcgttt ccttggttca tctgtttctt ggtcctgtag tgcttctttt tgattctatt 300  
 actgtaagac aagctcagaa tctttgtgga ccaagtaatg aatcaatctc acaagtgact 360  
 aagaattcaa gtcaatccct tgttggttgg gcctttggat tgccgctttc ctggctgact 420  
 cacacggtgc aattagttta 440

<210> 3504  
 <211> 487

<212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-G3  
 <400> 3504

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tgtttcttta aaaggggttc ttanggttta gtgaagctat agatttcaat ttcatacata  120
gttaacgtat agaaggaatc ttgggttgat caatggaagg ttgtccaaga aacagagaaa  180
tcggtccaaa acttcttgat ttgattccac aangaaggaa atggtaccaa gaagacaaga  240
acaacacaga tcacgagaag aaacttgagc taangcttgg accacccggt ggtgatgaag  300
aagatcattc aagcaatcaa gaaagaanga acacnagaga taagaaacat caaagaanga  360
aacagaagac aaatctttcc actgttttaa tggcaatcac ttctctcctt ccaacaaaaa  420
ccacttctgt tcttcacatc tcacaagaaa aagaactgct cctgggtcca gtggtgggtt  480
ggcctcc                                         487
```

<210> 3505  
 <211> 501  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-E3  
 <400> 3505

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tgttacgctt gcctttaccg gnccnanaat tcccggatcg acccacgct cgcangaaa   60
tcttcacttt ctctctagaa aaaattggna agctgactcg ataanagact ctctttttct  120
tcttcgtcct gcanatgggc gatcgaggat caagagaaca caatccgtga aatcaaacct  180
aagaacaaga agaatcatgg gagctggtgg tccggaggaa gaggagaacc ggtggccgcc  240
atggttgaaa ctttgctta aagagcaatt ctttgttcat tgcaagtttc atgghanactc  300
tcataagant gaatgcanta ngtnntgctt anactgcacc aatggccac tttgcnctct  360
ttgtcttgct catcacaagg atnatccgca ccattcanat aaggagatt cttcttatca  420
tgatgttata acgggtgaat ggagatacaa nagtaacctt ganatnangg tggggattca  480
aacctaaggt gttaantaat g                                         501
```

<210> 3506  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-088-Q1-E1-B5

<400> 3506

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cgaatcggac agagaatttc ttccgtagtt tttcttgtaa gcgaaaaaga agtttagtta  120
gctcgtgtga gagaaggggtg taatgagctg ttttggttgg tgtgggagtg aggattttcg  180
caacgctact gacactggcc caaggccagc gcataaccca gcaggttaca atggaggcca  240
ctaccaaaga gctgatccac ccatgaacca gcctgttatt cccatgcagc ctatttctgt  300
accagccatt ccagtggatg agctgagaga tataactgat aactatggtt caaagacctt  360
gatcggcgaa gggttcctaa ggaagaatgt ttaaggtgt tcttaaaagc cgtggtgcag  420
ctgccatc                                         428
  
```

<210> 3507  
 <211> 457  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-B8

<400> 3507

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gaaagttgct gtctttataa ccaggatttg gtaattccca ttgtttcatg ggcaattctt  120
gccgtggatc tttcaaggac aaactcgacg aaggcgataa caataagcct gaagattact  180
ctaaaacctc taccaccaac ttgtcttcta attccgacca ttcaccgaac gctgcagaca  240
tcattgctca agaattctcn nnnnnnnnnn nnnnnnnnnn nnnnnnnnna gatccagctc  300
ttgttattcc cttaagaga accaatcatg agggcgtaa cccagacaat caaagcttac  360
taagttcctt ggtcataaag acaccaaaca attcgtggat aatccnatac ccctaancgg  420
caagcctang gtcaaagggt caatttgga ccaactt                                         457
  
```

<210> 3508  
 <211> 448  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-B9  
  
 <400> 3508

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ttgattgagt catcatcttc ttggacaaga agtgggtccga accaaaacca agccagagaa   120
tgaatctctc aggggatcga acaactctaa agcgtcactc gtcgctttca acacttgtgg   180
ctcatttctt tggcatctta gctgttggtc tgatgctaatt ttggcttctc cactaccgtg   240
aaggcatcga gtatgggtcc gacaaccccc ttaagggttt aaatgtgcac ccatttctca   300
tgtactgtgg atttctcttc ctctgtgggc aagcaatgat gacttacaaa acggcgtagc   360
cgtcgacca agttcaagaa aatgggttcac ggtgggcttc acttaatang ctttaattcta   420
ngtaatgtcc ggatccgggc ccgccttt                                     448
  
```

<210> 3509  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-C12  
  
 <400> 3509

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tcagctcccc tagttaaaact tggggatgca tcaatggcat ccccttcan agctaaacat    60
gcgtcagttg ccccantgac anacataatc cggcagggtc gtagcacact tgtgacgact   120
cttcagatgt tcaaaattct cggctctgaac tgtctcgcca cagcatatgt cctaagtgtt   180
atgtacttag acggtgtaaa gcttggtgat gtccaggcta caatcancgg agtggttaaca   240
gntgcgtttt tctcttcat ttctcatgcc cgaccgcttc aaacctctc tgcagaacgg   300
ccccaccga gtgtcttctc cgtgtacctc ttctctctc tgataggaca gtttgctgtt   360
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```

<210> 3510



<211> 481  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-C3  
  
 <400> 3510

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tcccttcttc tcgactctct gactcaatca acctctataa atgtaaaacg agtcagaagg 120
aacacagacg cacatcaaga anttaaataa ctaaaatgga ttaccccatg aagaaggtaa 180
aaatcttttt caactacctc atggcgcatc gcttcaanct ctgcttctta ccattaangg 240
ntgctanagc cgtggangcg tcncgtcggt ccacacaaga tctccaaaac ttttacctct 300
acttacaang caaccanaca tctntaacca tgttcttctt ttacctcgct ctggggtcga 360
ctccttacct catgaccggg gccaaaacg ttaaccccg ttgacttttag ctgctaactc 420
ccaacgtcgc atctcaaagc cagcanccaa gangatnatg caccacgtaa aggcttgtn 480
g 481
  
```

<210> 3511  
 <211> 454  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-C9  
  
 <400> 3511

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caggaaacat gcctcctcag aagattgaaa ctgggtcatag cgacactatt catgatgtgg 120
tcatggatta ctatggaaag cgagtagcaa ctgcctcgtc tgactgcacg atcaagataa 180
ccggagtaag caacagcggg ggatctcagc atctagctac cttaaccggg catcgaggtc 240
ctgtctggca agtcgcttgg gcgcacccaa agtttggttc acttctcgct tcatgttcct 300
atgatgggca aattatatta tgggaaagaa ggtaaccaa accaatggac acaagctcat 360
gtcttcacaa gaccacaaag tatctgtcaa ctctatcgcn tgggctcctc atgaacttgg 420
actcccctta accttgcgga gcacctgat ggga 454
  
```

<210> 3512  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-088-Q1-E1-D12  
  
 <400> 3512

```

caaataaaca ttaaacccaa atgatatatt ttggtagatc aatcgacaat cattatacaa   60
caatgatgac aaaaacattg gagattgatt tgagatcagc agaagggctt aagctaaacc  120
ggagacccat caagaaaaag actttcgccg tcgtaaaaat cgacgagaaa tgtcgaaaat  180
ctaactctga cgaatcgaga agaagcaatc ctacatggaa ctataaatca gagatgceca  240
tcaatggtaa tgaacagttt atcttcattg aggtatttta tcgaacaggt tctgggcatg  300
ataaaaaaat cggagaagct aaaatcccaa cgaatgattt catgggaagg tattcacctg  360
aaggtcactt aaacttcttg agctatagat tgagagatga gtttggtgat aagtgtggga  420
  
```

<210> 3513  
 <211> 484  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-D2  
  
 <400> 3513

```

taccggncca aagattcccg aatcgaccca cgccctccgnn ggacgcgtgg gtgttggtat   60
accaattctt acgtcaacgt caatgaagaa acgactccat atttacgaat aaaaaactgt  120
agtagatctg tactctccct ttttctttgt agagaagaag agaactgtga aagaagatga  180
agattgagga ggatctaggt ttcatcaaca tactcaaacg agcaacaaag cttctatgtg  240
gtaacatcaa tcttggtctc ttctcttccc tttgctctct cccctctttt tgtttcttga  300
tcttcttcga gctttcactc caaaccactg tctcactcgc ttctcaatan ctcgttccga  360
caactcacta attgggatta cnactacgtt cctcaaagat gcntccgtct tggagaaatc  420
cggattccaa tggcntatcc agacatttct acnctacntg gttcccgta nggggctcat  480
agac                                              484
  
```

<210> 3514  
 <211> 500  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-D3

<400> 3514

```

ttctacgcct gncctttacc gggcccaaaa attcccggat cgacccacgc gtccgnaacg   60
ancgaccagc catggacatt ggnggtccaa ccaatatccg ccacgtggct cacgttacct  120
tcgatcgctt cgatggcttc ctcggccttc cctctgantt cgagcctgat gtccccanaa  180
aagctcccaa tgcaagtgca acgggtgtttg gggatatcgac agagtcaatg cacttatcat  240
acgactcgag agggaaactgt gttcctgtga tactgttgct attgcaanag ccngctttaa  300
gatcaaagag gcttgcaagc aanaangatt attcagaatc actgggagaa aaaaaccnan  360
ggaanaatth ttaagggaa cagcttaata anagggatna tacctgatgg ggattgatgt  420
ccantgttta accgggtcct aataaaggct tggttcaaag aanctgccn agaaggggtac  480
tggtattctc tgccatccgn                                     500

```

<210> 3515  
 <211> 427  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-D5

<400> 3515

```

atctgaacaa agttgggttt ttattggta ccagaatct caattctcct tctttccttc   60
tgggtanagg aaaagtctcg ccttttttta tatttatcca atcgncncng ttcattgatt  120
ccccantagg attgtagttt ttggttattg ggaaaattga gtaaaggagg agatgggttg  180
tttctcgtgt ttgattcna gtgatgacga gaagctgaat ccagttgatg aatctaataca  240
tggtaagaa gaancaatca caaccgacag tatccaataa catatcngga ctcncttcan  300
gtgggganaa gcttagctca nagaccaatg gngggattaa aaaggagct actgcttcca  360
ngggatggac ntggacaaat tgcngctcat acatttgctt tccgcaagct tgctgcngca  420
actatga                                             427

```

<210> 3516  
 <211> 426  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-D7  
  
 <400> 3516

```

cttagcaaaa ttcttctgaa tgaataatcg gcgattatgt cnttgaaaaa cgatgcgagt   60
agtagccacg acggtggaag caacagagaa agcgtaatcn atgatcatgg ccgccgtaaa  120
agcacttgcg gctactgtaa atccccagct cgggtccanta tctctcacgg tttatnagca  180
cagactctta ccgtttatga ctaccaagct cttattgacc gatgctggag aagatctggg  240
acttatcttt acaaacatga gatggataaa acgtgttgcc ctctttatac gatacgtttg  300
aaagcaagtg attttgttcc tactaaagag cacnancgag tttctagaaa actagaaagg  360
ttcttggatg gcaaactaaa tgtgcagccc agggaaacaaa nanggtgctt cttctccggg  420
ngatgt                                           426
  
```

<210> 3517  
 <211> 479  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-D9  
  
 <400> 3517

```

cttttaccgg nccggtaccg ctcaaagaat tcccnggncg acccacgcgt ccggtttttg   60
tttcttcttc tttcaaaatc tcaagcaaaa gaaaaaatgg agctattcac aaaaggtaac  120
aacgttaagt tacgtagcca cctagataag tttttagtcg ccgacgatga ccaagaaacc  180
atccgtcaaa gccgtaaagg agatgcacgg cgtgccgttt ggacggtgga gcccgtcgtc  240
gataaaccta atctgataag gttaaagagc agccacggca cgtacttaac ggcgagcaac  300
aaaccgttat tgtaggtat gaccggtgag aaagtgactc aaacggcgtc gtttaacaag  360
ctgatggatt ggcaaacgca gtgggaaccg gagcgagatg ggtttcaggt gaaagctaaa  420
atccttgggt gcgtaagtt ggatgaaggc taacggtggn aaccgcgctg tggaaaaac   479
  
```

<210> 3518  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-E10  
  
 <400> 3518

```

tgacatctcc gtgcaatcgg gagagaactt tttttgtgtt ggtgggtggtt ggcttttcgta   60
catgcaggat cagtatataa atcacattat gaatgaaaca ggagcaactg ttgtattaag   120
agggcgtggt tcaggaagcc ttgagaatca acatggagat gaagcacagc taccgctgca   180
tctattatta tccggcagca acccaaagag catcgacgat gcaaaacggt tagctgagaa   240
tcttatggat acaatcagtg tagaatttgg ggcttcaagg gtttcctcaa gcaaggtgta   300
tggtgcagta ccaccaccac agcaactgat ttctggagct ccgggttctg accaggagaa   360
ccaaaatttg atttcaacgt atggtttgat gacatcnata nccatcacaa gcaacaacat   420
a                                                                                   421
  
```

<210> 3519  
 <211> 436  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-E2  
  
 <400> 3519

```

cactttcatc tccaccacca ccatggatga tctctccaag cttctcttct tcctcctcct   60
cactatctcc attaccaccg cattaccgga taaacccggg tcgggtcaaa taaactcaaa   120
ctccgtctct gttgctcttc ttgantcaca ctacacagaa ctagcagagc tcgtcgaaaa   180
agctcttctt ctccaaacct tagaagaagc tgttgggtcaa cacaacatca caatctttgc   240
tcctcgtaac gatgccttag aaaaaaatchn tgatcctgaa ttcaaactct tcttactcca   300
accgaaaaaa ctcaaatcat tacaatcttt attaatgttc acattcttcc aaaaagaatc   360
acttctccac aattctctc cgcggtcggt aagcaaccgt tatctctcna acgacnactc   420
catttcacca aangga                                                                 436
  
```

<210> 3520  
 <211> 490  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-088-Q1-E1-B3  
  
 <400> 3520

```

aacgttacct gccctttacct gccaanattc gcggaacgac ccacgcgncc gagtgcagca   60
cagagaagcc tgccactcga tattgacctt tctaaccgac atttttgacc tcgagaagtc  120
tgtgaatgaa gaacagttcg tacggatcag ggacaatatc attattcctc ggggagctac  180
aatcaccaga atattgatng cctcattagc tggggcactt cccagttctc ggctagatac  240
ggtaacatat tcgctgctag ctctgacaag aacatacagg ttacaagcag tgagttgggc  300
taaggaaagt gtaagcctga tacctcgaac agccttgaca ganaccgaat ctaccaagtt  360
cttacaagca ttgtccgata ttgcttatgg agcaaagtgt aattctctga taggacangt  420
tgaggagctc tcanatgttt gtccgacgta accgtactgt tcaagaacct tgttcaagna  480
agctttgaaa                                     490
  
```

<210> 3521  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> Clone ID: LIB22-086-Q1-E1-H8  
  
 <400> 3521

```

gcacccgggt cataagaagc aagctttctg ttatgggttt gttgcgttat tctaactctc   60
gcgtcccagc ttctggtgat cctcccgtc ttccacctgg agagcttggt tgggtccatga  120
gacaagctag aaccttcaga tggaacttaa cagcaaagtc agctagacca aacctcaag  180
gatctttcca ctatggaatg atcagtccaa caaagacatt tgtcttctca aattcagctc  240
ctttgattaa tgggaagcaa agatatgcag tcaatggagt ctcttatgtg aaatcagaga  300
cgctcttaa actcgctgat cactttggca tctcaggagt tttcaagcac caatgccatt  360
caaagcgtcc catcaaactc tccgcaaac agttgcaaca tcagttgttc aaacatctca  420
  
```

cca

423

<210> 3522  
<211> 220  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-087-Q1-E1-A1  
  
<400> 3522

ngtaccggtc acaaattccc gggccgaccc acgcgtccng gtgtgtgtct gtgtggaaag 60  
tgtcttggtg ttgtgataaa accattttta aaaggttata tatattccaa tggatatgca 120  
tgtagtagta acatataaac ttttgtcatg gtttggtttc agacattact ttatagagtg 180  
aaaatgtatt gtatgttttt attaaaaaaa aaaaaaaagg 220

<210> 3523  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-087-Q1-E1-A12  
  
<400> 3523

aaacaaagat ggttttgaca aaaaccgcaa cgaatgatga atctgtctgc accatgttcg 60  
gatctcgcta tgttcgact acacttccca agtatgagat tggtgagaat tcgataccga 120  
angacgctgc gtatcagatc ataaaagatg agctgatgct tgatggtaac ccaaggctta 180  
acctagcttc ttttgtgact acatggatgg aaccagagtg tgacaaactc atcatggant 240  
ctatcaatan gaactacgtt gatatggatg agtaccctgt cacaactgag ctccagaacc 300  
gatgtgtana cattatatct cgactgttca ntgcgccact cgatgnatct gatacnngcng 360  
tnggagtang ggacagttgg ntcntcana agncatcagg ttagccggnt ttggcttcaa 420  
g 421

<210> 3524  
<211> 464  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-087-Q1-E1-A6

<400> 3524

cgccgcncag gaaacgggtca agaantcccg ggncgaccca cgcgtccncc cacgcgtccg 60  
gttatagggc cgtgcttctt gatgctcaga aacaaactga gccatttgta tattattgtg 120  
gtgtttttct tgtccccaag actcgtgctc atgagtggct gttctgttca gaagaaggac 180  
agtggcaggt tgtcgagagt tctcaggccg ctcgtctcat aatgggtttt ctcgacagta 240  
gccatagtgg agccaccatg gaggatatcc agaatgattt atctccaatg gtgacacaac 300  
tagctcccag aatgatgat gaagctcgca ttccgtatat gatggcaagt gatgggataa 360  
aaaagcgtga tactgtccac gaggttacat ctctatgac tgggaaagtg gttgttgaag 420  
atgtggttta tgaaagcgct cctagtaatt tagaagactt gtct 464

<210> 3525  
<211> 519  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-087-Q1-E1-A9

<400> 3525

tnactgtctc cctggtcgta caagtccgan attcccnggt cgaccacgc gtccgctcat 60  
tctcccctct ctctctactt ctagtgtttt tttttgtgtg atgatgaaca aagacatgtt 120  
acttcaccag catcagcaac cacaacaaga cgagaatatg tcgaatctaa catcagcttc 180  
cggggatcaa gcaagtgtct cttcaggaaa tataactgaa gcaagtgggt ctaattactt 240  
ccctnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnng ttagttgttc cagattcgca 300  
gactcaaaag aagaggagaa accaaccagg gaatccagac ccagaatcag aagtgatagc 360  
tctatcacca aaaacactaa tggcaacaaa caagattcgt gtgtgaaatc tgcaacaaag 420  
gttttcaaaa gaagaccaga atctacagct tcatangaaa gaaggtcaca atctgccatg 480  
ggaagctgaa acaaagattc aacaaagaan tggttaggg 519

<210> 3526  
<211> 506  
<212> DNA



<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-087-Q1-E1-B11

<400> 3526

ctgccctaca atccganatc ccnggtcgac ccacgcgtcc ggaaacagca aatctgaggt 60  
tttagaaaat gggatcttct tctgggcaaa gtggatacga tctgtctttt aagatcttgt 120  
tgattggtga ttctggtggt ggtaaaagca gtttgcttgt cagcttcatt tctagctccg 180  
ttgaagatct tgctcctact attggtgttg atttcaagat caaacaattg acagtaggag 240  
gcaaaaaggct aaaactcaca atctgggaca cagctggaca ggaacggttt agaacactga 300  
caagctctta ctacagaggc gcccaaggaa tcattctccg tttatgatgt gacgagaagg 360  
gagacattta caaacttant agatgtgtgg ggtaaggaga ttgagcttta ctccacaaac 420  
caaagaatgt gttaaggatg ctentttggg aacaaagtcc gataagagaa tctgaaanaa 480  
gganttagca agagaaagaa agggat 506

<210> 3527

<211> 463

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-087-Q1-E1-B3

<400> 3527

tgtacgcctc aagaattcca nggnogaccc acnecgtccg ccacgcgtcc gctatTTTTT 60  
attcagacga acctagacac cattccaatg gatgagcagg tccaagaacc tctttctgat 120  
cagggtgttta tcaacttccg aggagatgag ctgcgcgaaa tctttgtcaa ccatctagag 180  
ctgcaattaa gaaacgcagg gatcaacgtc ttcatagaca ctaaagagca gaaagggaga 240  
agactacaat atctcttcac aaggatcaag aagtcaaaaa tcgcgcttgc tatcttctcc 300  
aagaggtact gtgagtcaaa gtggtgtttg gatgagcttg tgacgatgaa tgaacagatg 360  
aaggaaaaga aactcgtggt gattccaatc ttctataacg taagatcgga cgatgtaaaa 420  
agagcagcca atccccgatg gagaangcaa tcttgatgga gag 463

<210> 3528

<211> 468  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-087-Q1-E1-B4

<400> 3528

```
ccgntcggta cgcctcaaga attccanggn cgacccacnc gtcncagaa gctggggagc 60
gaagttgctg gacgaaaaaa gactttgttt aggagtcaaa gtgctcaaag tcgttcattt 120
agagtccctc agagtgaaaa agaggatgag tcacttgagg gagttaatat aaaccgatta 180
aagaagagcg ttgcttcatt tcaagaagat aagtatccac ctggaaagaa gttttgctca 240
gatgcatctc ctctggaac tagcatgaga aagttttccc caccttttgt accaaatgcc 300
tggagacgac tatctatgcc tgtggagcta aagaaagctc ggttggattt ctctgaggaa 360
aaagatgatg aagaaacagg gaaatgggaa tctgaaatga ctcatgaacg tgagctgcga 420
gatgatgatt atgtttctgg tgatgatggg gaaaataatg aggtctta 468
```

<210> 3529  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-087-Q1-E1-B7

<400> 3529

```
anttccccggg ccgacccacg cgtcnnaggg gaagaagatc tcgttcctc taagccatga 60
atcgtcgtaa tcgtggctct tcttcttctt ctcttagggt ttccaatact tatgggaacc 120
gccagttctc tgataaccg aggactggat cggcgggcgg agttaatgaa tcctttcaga 180
gaagatccga tgcaccgcac aaacgaaaca atgaaaaaga cgaatcaaaa cataaagacg 240
aagatcctgc tgacgtttca ttgattgtag gaacttggtc ttctangtgc ccagttctta 300
ggtcaattag gtactttccc ttcancaatt catgatcctt ccgtgcatcg gcagttcaga 360
acaaagaatt atcttttgct aggggttttag agagggaag agtcacaaga gaacgcctgc 420
gtgatcttgc agtgtttgag a 441
```

<210> 3530

<211> 443  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-087-Q1-E1-B8

<400> 3530

tccccggggcc gaccacgcg tcaaagctgc ttcacattgc ctcacaagat cagccacaca 60  
tcgtcccaat ataagacaaa tactgaggct actaagagat gaaaacgaag ccgggaaatg 120  
gattatggaa gangaaggaa atgaagattg cttcgatgac gaggtttacc cgaattccag 180  
cacagaatta cacttaaacc ttgcgatgct tgagggtggaa gacgatgaaa ctgcatcaat 240  
cagcagcatg gagagaagta acancagcct tttttcttct acttggtcat ctagggagct 300  
tcaaacataa ggaattatgc ttttagctaa tagagagggt angtacttan gttanagggt 360  
tgtttcttag tgtatggagt ttacttgatn actttatgtn ggacctgagc tccctgctgt 420  
tatctggacc angaaaattc att 443

<210> 3531  
<211> 520  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-087-Q1-E1-B9

<400> 3531

tcgtgtctcc ctggntccta caagtccggn natcccnggt cgaccacgc gnccgnnnnn 60  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
nnnnnnnnnn nctttctcc actccaagcc tgagcgagac cgaagagtct ttcaacagnt 180  
acgaggaaaa ttaccggnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360  
nnnnnnnnnn nnnnnnnnnn gttaangaa gagtctttcc cccgagaaca atgangacaa 420  
cagagaaaaa angtcctaca actcctancg ncntacgggg acagaattng ancgttgaaa 480  
ccancggtnc aagaggttca agcccaacct tggngagaac 520

<210> 3532  
 <211> 470  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-087-Q1-E1-C10  
  
 <400> 3532

```

acgcgtccga anaaaaaaaa aagatccaaa ttacaaccat gccttcggag ttaacaccag   60
aagaacgata ggaactaaaa aactcaatcg ccgagttcca cacataccaa ctcgatccag  120
gaagctgttc atcactccac gcgcaacgaa tccangcgcc tccggaactc gtctgggtcaa  180
tcgtacgacg attcgacaaa ccacaaacat acaaacaactt catcaaattc tgctccgctc  240
aacaaaactt cgagatgcgc gtcggatgca cgcgcgacgt gatcgtcata agtggattac  300
cggcgaacac atcaacggaa agactcgata tactcgacga cgaacggaga gttaccggga  360
ttcagtatca tccggagggc gaaacatagg ctgacgantt acaaattccg ttacgacgg  420
tgcattccgt tcgagaaaag agaattcgggt tctgggacgg gtggnttttg          470
  
```

<210> 3533  
 <211> 462  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-087-Q1-E1-C3  
  
 <400> 3533

```

gtacgcctca agaattccan ggncgaccca cncgtccgct gcgttnaact atgctgcaac   60
tgantacaan tttgatgagc atgctcctcc aatggctaag aaagtgggtga ntcaagcaca  120
tgtattgata tacaaggcga cagagaaagc tcaaagcttt gtgaaagagg ctcgtagcgg  180
tgggtccaaa gctgcgttta actatgctgc aactgagtag aagtttttcg ttgtgaccaa  240
ctcgggttaa gtctgggcna aacttaacca gtataaacca atccatgcaa tgggtgacaa  300
agctttgcct gtggctgcac actttttcaa gtcggtacaa cnatttggtg actgatatna  360
ctaatatggg ttactctttg gttggntatc ttccgttggt tcctgttgat gacattgtta  420
aggcttatga aaacganana tgcaaggaga aagaaaagga gg                      462
  
```

<210> 3534  
 <211> 476  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-087-Q1-E1-C4

<400> 3534

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nggaaactcc accgcacggt agcctcacia attccanggg ccgacccacc cgtcnntctc   60
tctgctcttc ctctgtctac attaatgtaa ttttgatcat cggattgggt gaaagaaaca  120
tcaaactcct aaaagagaag cctttaaaagt ttttttttaa tcaaaaacaa aaggaagaaa  180
attttccttt ttgttttaga tggcatgaat catcatcatc gctttgcttt cttgattctc  240
tatttcgttt gatgggattt gtttttctgg gaatttatcc attcacctgc tgccatggct  300
aaattatctt tcaaggattc tcttaaagct cttgaagccg atattcaaca cgctaataca  360
ctagcttttag attatcctcg ggagaaggat ggagcgcgcg ttcagatgag attatcatac  420
agcccgactg ctcaattttt tctttttcnt gtacaatgga ctgattgtaa gcttgc      476
  
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<210> 3535  
 <211> 440  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-086-Q1-E1-H7

<400> 3535

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cttcggtctc atatctgcc aactctact caaattaggg ttgtgaaact tgcggtgaac  120
tacttcgccg gaaacttcac ttccgggttt gggaaatgtg tcttgcttga gcatctctgt  180
cttggtatga acgatcttac tggtaacatc cctgaggatt tgtttcatct caaaagattg  240
aatcttttag ggattcaaga gaatcgtctc tctgggtcgt tgagtcgtga gattaggaat  300
ctctcaagtc ttgttcgtct tgatgtttct tggaatttgt tttccggtga aatccctgat  360
gtgttcgacg aattgcctca gttaaagttt ttcctaaggc agnccnatgg gnttcnattg  420
gggggaatnc caaaatccgt                                     440
  
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<210> 3536  
 <211> 514  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-086-Q1-E1-F11

<400> 3536

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ttggcccttg gtgatctttt ccagaatgaa gctcttgcta gaagcaccga tgcagcttct  120
gcttgccgtg ctttagtcaa tgtccttgaa gaacaacca cagaagaaat gaaagtagtt  180
gctatatgtg ctctgcaaaa tctcgtcatg tatagccgat ctaacaaaag agcagttgcc  240
gaggcaggtg gtgtgcaggt cgtcttggtg ctgatcagtt ccagtgatcc tgaaacgtct  300
gttcaggtcg caatgttcgt aaaactactc ttctctaata acaccgttca agagtacgca  360
tctagcgaaa ccgtcaagag caataactgg ctgccattga gaaagactta tgggccactg  420
gaaaccgtga atgatgaata cctaaaaanc cttaaactcc tttgttnaac aacttccgcg  480
gtctaagact acaaangcct ggaacactaa gttt                                     514

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<210> 3537  
 <211> 466  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-086-Q1-E1-F3

<400> 3537

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actcgtgtag atgagaatcg gcggcgtcga ggttacgaaa tttgcgtcgg agatgatgtc  120
gtcgtcgtct tcgtcggcgg tggagatggt gaatctcaaa gaagcttcga attggtgggtc  180
agacgtaaac gaatctccga tttggcagga tcgtatcttc catgttctcg ctgttctcta  240
cggaatcggt tccctcgttg ctgtgattca acttgtgaga atacaattga gagttcctga  300
atatggttgg acgacgcaaa aggtctttca ctttctcaat ttcgttggtt atggagttcg  360
tgctgtggtg tttgtcttca ggcgaaatgt tcagtttatg caaccagaga ttctgcaaca  420

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tancctngcc tnganaatcc aaatncttgc tttcctcaac aacctn

466

<210> 3538  
<211> 481  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-F6

<400> 3538

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cgcgctccgga agagagaaga agaagaagaa tgaagctaac acataannnn nnnnnnnnnn 120  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnatgtggt gtacttcgga gtcactctc atgtcggaga gataacagaa gatgccatgg 240  
atcgagtcaa agaaactcac tacgactttc ttggttcctt cactggaagc cgtgagagag 300  
ccacagacgc cattttctac tcatacacia agcacatcaa cggattcgct gtcactctag 360  
accacgacct tgcttatgaa atctccaaac accctgaagt tgtgtctgtc ttcccaaaca 420  
aagctttaa gttcacacg actcgatcat gggacttttt gggtttgga cataactctt 480  
a 481

<210> 3539  
<211> 472  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-F7

<400> 3539

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gctaatacaa ataaaatttt ctctttattt tattattttg ccacaagccg tgaaaagatg 180  
gagaaaatga atgtccgttt tatgattgtg ttgatggtaa tgtctctggt tctgggtttt 240  
tcgtcggcag ttgatttcag atggaggaaa actgcaggat tctcagatag attcaccaga 300  
gctgtttctt cagtcgtgtt cccagttcat ggcaacgttt atctcttgg gtactataat 360

gtaaccatca acataggaca accaccaaga ccttattatc ttgatcttga tactggtaat 420  
gatctcactt ggcccaatgt gangncacct ggggtccgtg ncttgaaggc cc 472

<210> 3540  
<211> 474  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-G3

<400> 3540

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agtatctgca ctttggttca tcgagaaaca tctactcgac gaggcttctc ctgtggctac 120  
agatccatgg atgaagcacg aatcatcatc agcaacagaa tctagctctg actcttggtc 180  
tatcatcttc ggatcatcgt cctcttcttt cgccccaatt gatttctctg aatccgtatg 240  
caaacctgaa atcatcgatc tcgatactcc cagatctatg gaatttctat cgattccatt 300  
tgaatttgac tcagaagttt ctgtttctga ttctgatttt aaaccttcta atcaaaatca 360  
aatcagttt gaaccggagc ttaaattctca aattcgtaaa acgccaatgg aagaattcgc 420  
cttccaagct naaacaagag tgggntcaaa ttctgcaagct tgaaaacnac caaa 474

<210> 3541  
<211> 433  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-G5

<400> 3541

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ttgttttcta agttatcttt ttgtatgagt ttcaaagctt atcattatct cactcttctt 120  
ccatagctat gactacttta acgaagattc aagtgtaccc acaagtcttg gagcacgctc 180  
tcttcttcag agatccgata cgggtcgggt caagattgac ttgtagagaa cgtagtaata 240  
gggtttatgt gcatcggtgt gagaaaaaag ttgaaagaaa gagaaaagtt gagaaattta 300  
agggaaatgg gtcgtgggat tctttgaaat ctgggttttt agggtttagt aaattagggt 360



tcttgtctaa agatgagtat aatcaagaaa gttgaaaacn tggagaaggg tttccctcc 420  
 ggntgccggt caa 433

<210> 3542  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-086-Q1-E1-G6  
 <400> 3542

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 aacatcatcg tcgccgtcgt tgttttcgct gatgaatctc tccttcaa at ctccgggaat 120  
 tcaaagctcc tcgagaaact ccgtgtat ttcgtcacgt gtttcctctt cttcttacgc 180  
 tctcttcctt caatcgtctc tttcgcaa ac cctaattcgt cagtcgtctc tttcgccaac 240  
 ccttattcat cgaagacgaa gaagaagaat aagatactgg tgatcaacca ttgcgaagaa 300  
 tcgggaatcg gtcgagcaat ttgggcagtt attgtcagcg atgaatgaaa ttccggtgag 360  
 ttctaagaaa gtaccaagtg gttcgatcgt tggcggagag actaatcaac gataatcaag 420  
 gagaaaactc agtc 434

<210> 3543  
 <211> 462  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-086-Q1-E1-H10  
 <400> 3543

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 tgggtggtgat tgtgcttcac ttaccaataa aaacaatcag tctcatcagc cagtcctttt 120  
 tccctctcca atttgggggtg tacgaggatg agtttgtggt tggcttactt gttgcttata 180  
 tgtgcctagt aatattcggg ccccggtggt tagccaattt aattagacca tccatcagac 240  
 ccatagttca caagtgggtt atcaactatca gttctttgct caagttgagt gatttcttgc 300  
 ttggagagcc ccgaaaacac cgtgcaaatac ataatatgag acttcggtgt ctagtatttg 360  
 gcataactga angctctaag gtcaatttgc atggatctca aagcgatacc acctgtgaaa 420

aaggatacaa aactaacaaa agagaataaa aagggttatg gt

462

<210> 3544  
<211> 440  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-H12  
  
<400> 3544

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gcttcatcgt tcaagggagg aagtgaacc tttctccana atgtatttga aagtatactg 120  
aaaacgtatt tgaggaanaa cccgatggcg aagacgatat gggaactagt taactcgggtg 180  
gacaacgaaa agatctctta cgaccacttc tttttcanga catttaaggt cgatgggttat 240  
ggaattgatt ccctggcgag ttttttcatg gattatggat ataaagttgg aggcagactt 300  
gattttccan gagaagaaag tanaagttct ctgggctttc tcctccggga tgttcacttc 360  
cccggataat ggttaccngt attggcaatg gcnccttttgc canngacttt gttaganncn 420  
gaggcttcnt gtggagggaa 440

<210> 3545  
<211> 487  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-H3  
  
<400> 3545

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accacacaca gccacaatct tttgaatfff cctctctatc atcgtctctc tccgatccat 120  
ggcctttaac aatttcaccc gcctcgatgc tcaactccgcc gccgagaaaag ccgtctctgt 180  
aatcggatta ggttacgatc tctgctccga tgttcgtttc tccgcttgta aaaccacacc 240  
cgacggttcc aggttagtcg aaatcgaccc gactcggaac cgtgacttaa tcttccccgg 300  
tggtatcgtc gttaacaacg tctcgagctc gattaagtgc gataaaggcg aacgtactcg 360  
attacgctcc gatatactct cttttaatca agatgtcgga gaagttaa caagatatgt 420

gtccctccgg ggaagatccg gtcagggann gttaannant aagtttgggg ttaagtaaaa 480  
tgttggg 487

<210> 3546  
<211> 429  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-H4

<400> 3546

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atatctacac aagaagataa gaagcttaag attctctcca caaaacaaaa atagttatca 120  
gattcacaaa caaagccatc aaatttcacg attgatttgt tcaataagaa atgggaagca 180  
aatggcgaaa agcaaagggtg gctttagggtc tcaatttatg tctctacgtt cccaaaacgc 240  
ttgaagattc ttctctcca agaagatccg acgacgccgt ttcactttct ccggttattg 300  
ttcaaagacc atcaacgccg actccttctt cctctgggtc ccgattacct cgttccatga 360  
gcaaattctc atcaaagaaa acttggtgca tatgtttgac ggcgatgaaa gctggggcaa 420  
gggcacgcc 429

<210> 3547  
<211> 402  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-H5

<400> 3547

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atctaaatta cgtatcaaatt tccgagcaag atgactattc ttgttgaaca ttttgttctt 120  
gattcaagag tggatgaaaa gaaagtgata gaggagangg ataatagaatt ggtgttggtt 180  
ggaggttttg nggttccaaa atcnaaggaa actgatgcan tcnatgctcc tganatgaat 240  
ttcttgggcc antccttcaa ggantatgag aatggtgaaa gccagagaca acaaggtggt 300  
gangaanttt acaggggtgca caccacatcc accagcccta ngactttgng aagaatatga 360

ggaaagagta tggaaacctt aacaggatgg aaatgngtat gg

402

<210> 3548  
<211> 504  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-F10  
  
<400> 3548

aactgtttcc ctgttccgta cngccccgga attcccgang tgcacccacg cgtccgcccc 60  
cgcgtcngct catcttctct tccattcaaa tctcacattc cctcttcaca acaacagctt 120  
cgtattcgct catcttcttc gctttctgat cttggaaatc gcaggcattg ttcgtctact 180  
cgaggatttc aattttggtc atnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnac cggcgggttcg tatttccgac 300  
gggaatctaa tcatcaaaaa ccggacgatt ctaaccgggtg taccagataa tgtcatcacg 360  
acgtcagcat cggaagctgg accggtagaa ggagtcttcg tcggagctgt atttaacaag 420  
gaagagagta acacatcgta ccgattgggt acgcttcgca attcccggtt aagtctggtt 480  
tccggttaaa ctctggtgga tggc 504

<210> 3549  
<211> 422  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-C7  
  
<400> 3549

agntgccccg cggccggtaa aggtcanaga attcccgggc cgacccangc gtcnanctca 60  
gtttttggtc gaagttggtg aagtcgcccgc cgggacaact caggttgtta cagatgataa 120  
acatgcgaga taatccaaca atgcatgtct tacaagcttc aaagtttcta tttttagctc 180  
ttattttgat ccagttgctg tctactcaac tctttgctca aagatctaaa agtccatggc 240  
aaacactcac tggagatgct ccccttgctc ttgctcgtgg tgggttttct gggttgttgc 300  
cagattcaag tctcgtgct tacagttttg tatcgagac tagtggtcct ggtgctgttc 360

tttgggtgtga tgtgcaacta acgaaagatg caattggact ttgcttcctt gatgtgaana 420  
tg 422

<210> 3550  
<211> 497  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-D1  
  
<400> 3550

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ctccgactct ttccccttga acctagctta acagagaaaa tcaaagagag aggaaaaatg 120  
agtggaggtg gtggagaaat ggaagagaga ctgttaaagt ggtcagagac agaacaaagg 180  
agagagagtc tctacttgag aaaaaagatt tggagtgaag taaggaagat gtggagaata 240  
gctttaccat caactttgtt cagagttatg tcgtttggat gcgtagtggg ggctcaagcc 300  
ttcattggcc actccagtga aacgggtctc gctgcttatg ctctccttca aagcactttc 360  
attcgcttca tctacggtat tatggcaagt atgtcaaata cgacananac cttatgtngg 420  
acnaacctac nggngcaaga acaattcccc aagaatgggg gaaaaacctt anaaangttc 480  
cttggganaa ttaaaaaa 497

<210> 3551  
<211> 452  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-D12  
  
<400> 3551

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tctctttcac atctccttct ctcgaaacca tcgacctgag ctaattcatc atcgaccttg 120  
ctcaaattca tcaacnatgt cttacgatta tctcttcaag tacataatca tcggagacac 180  
agggtgtggga aaatcgtgtc tgcttctgca atttactgat aagagggttc aaccagtcca 240  
cgatctcacc attggtgttg agttcgtgtc tcggatgggc accgtcgatg gacgccccat 300

caaactccaa atttggggac accgctggn aagnatcttt tagattcatc accaagatna 360  
tactacagag gagcancng gagtttactg gntttatgac atcannaaga agagagacgt 420  
ttaancatct gggcaagctg gtttggangg at 452

<210> 3552  
<211> 483  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-D2  
<400> 3552

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tctcatagat cagagtcgtc gtcgtcaact tcatcatcac aaaaatctca gctttgnnnn 120  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nccgttactc ttgacaccat 240  
caaccccaag gttatcaaat gtgagtatgc tgtccgtgga gaaattgtca acattgctca 300  
gaaattgcaa gaagatttga agactaacia ggacgcttat ccctttgatg agattatcta 360  
ctgtaatatc gggaatcctc aatctcttgg tcaacagcct ataacattct tcagagaagt 420  
tccttgcttt aagttcctaa acaagcctgg ttgggatgaa aagtgaaca cacggtttgg 480  
ttc 483

<210> 3553  
<211> 487  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-D4  
<400> 3553

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gagaagaggg aagacaaagg gaagagggag gagagagaag gcaccaccct ttggccctgg 120  
agagaccaa gatggtcgaa gagagacaac tctgagatca tcatcatcat cctgcaaaaa 180  
ctaacgagaa atcgattttc aaaaatataa tcaagatcga tttctaggga tattttgatt 240

tctaaatcct ctcaccaaca ttctcttget tgcctaccc gcttgctggt ttcaccaag 300  
 aaacataata atacattgtt tgcattataa ggaattcctt tatacagtat caagagatcc 360  
 acaagaagct gttagatccc aagagattaa cactgtgatg aaaaggggtt tgtgaaaatc 420  
 aattttcaaa cctggaaaat gatgatnaag gacccttata tccgacaatt ttcctctttt 480  
 cttcngt 487

<210> 3554  
 <211> 466  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-086-Q1-E1-D7

<400> 3554

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 caacaaggta ttgaagctcc tagtgacgat gatgatttta ttgaggtaag atcaaaaagg 180  
 caaatgctta atgatcgccg tgaacagaga gaaaaggaaa ttaaagagaa gtctcaggca 240  
 gccaaaggcat tccgaaaacc tcgttcaact ttccagaaca atactactgc agccagggtcc 300  
 aacagaagcc caccagctag ccgagctgcy aacaataagc agtttaatcc agtctccaac 360  
 agacagacgt tagccccaat tggcacacct tcacctaaaa tagattccca tgttgatgaa 420  
 aaatccggga acaacaagtc cactcaagga aattatgncc ctccca 466

<210> 3555  
 <211> 457  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-086-Q1-E1-D9

<400> 3555

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 caactatcag attgaacatg cagaggatta tgcagaacaa cgcagctgtg ttccgcacgc 180

aagaaacatt ggaagaaggt tgtcagttga ttgacaaggc ctgggaaagt tttggggacg 240  
tccaggtgaa agatcggagt atgatatgga actcggatth gatagagaca ttggaactgg 300  
agaacctttt gataaacgca tccataacaa tgcattcagc aagaagcacg aaaggaaagc 360  
aagaggagca catgctcggg aaaacttcac gaaanngana aggattggag aatgggttga 420  
agcatacatt ggggatattg ggaaaattga gaaattg 457

<210> 3556  
<211> 476  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-E10

<400> 3556

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tattggaatg ttgagatcat cggaggetca acttcaaag aatttctacg cgaagagctg 180  
tccaaacgca gagaaaatca tttcagatca tattcaaaat catatccaca atggtccttc 240  
tcttgacagt cctctcatcc gaatgcactt ccatgattgc ttcgttaggg gatgtgacgg 300  
atcgggtgtg ataaattcaa catctggtta cgcaagagaa gaagatgcac caccgaatcc 360  
taacacttna aaggatccgg gttccgtgga aagggtttta gggccctcct tgaaaaaatt 420  
gtgtcccaaa gactggttcc ttgcgccaga taacaattgg ctttgacctg gctaaa 476

<210> 3557  
<211> 480  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-E2

<400> 3557

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caaaccgga cccttgtaa cgctgaagat tccgagcctt cgagttcaac gagaaagcct 180



ctggtgaaga ttgtgaaagg taaaaaatta tgcgacaaag gatgggaatg caaaggatgg 240  
 tccgagtatt gttgcaacca tacaatctcc gatttttttg agacatatca attcgagaat 300  
 ctattctcta agcgtaacag tccaagtggc tcacgccgtc ggcttttggg attaccgatc 360  
 attcattact gcggctgccg agtaccaacc tcttggtttc ggtactgctg gtgagaaact 420  
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<210> 3558  
 <211> 473  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-086-Q1-E1-E3

<400> 3558

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 gagtttaata gattcaccat tgttatgact gcttttggaa atactgggaa tcttttggtta 180  
 gctattgtta gctcgggtgtg tcacacgaag acgaaccctt ttggaccgaa ttgtaactcg 240  
 agagggggtt cgtatgtatc gtttgcgcaa tgggttgctg tgattcttgt ttatactgtt 300  
 gtgtatcata tgatggagcc gcctttggag tactatgagg tcgttgagga agaaggggtt 360  
 gagatagagg agatnaatgt ggagaatcat gatgctanta agccccctcc aattgaaact 420  
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<210> 3559  
 <211> 439  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-086-Q1-E1-E5

<400> 3559

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 tgttggaatg gcagttggaa aggacagatt caaggaagat gctagacagg tcatggaagt 180

gctaattgtca ttgcaagggt ctcagatgga ggcagacgat ccaataacaa gttacatgtt 240  
acaggcatgg gctaggcttt gcaagtgtct aggtcaagat ttcctcccat acatgaagg 300  
tgtgatgcct cctttgcttc agtcagctca acttaagcca gatgtaacaa ttacatctgc 360  
tgattcagaa gatgaagcan angantccga tgatgaaagc atggagaaca ataaccctgg 420  
gggaacaaaa gaataaggg 439

<210> 3560  
<211> 480  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-E6

<400> 3560

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cctagattgg aattagattc tgggttcttg ggctaaagggt ttcttcatct ccttcgaatc 180  
atccttttag ggagcaagac gatgagtaga aaccctttcc tggatcctac tcttcaagaa 240  
attcttcaag tgattaaacc cacacgagca gatagggata cgaggatcac agtcattgat 300  
cagttgcgtg acgtcttaca atccgtagaa tgtttaagaa ggtgctactg ttcaaccatt 360  
tggatctttg tgtcaaatct cttcacacga tggggagact tagatatctc tgttgactta 420  
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<210> 3561  
<211> 429  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-086-Q1-E1-C5

<400> 3561

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ttactggtat cctcagttta ggagctctgc agccaggtga aactcgaaag tacggtacta 180

ctattgctcc tgggttgat gcaccagtcc atcaacattt ctttatcgct cgcattggata 240  
 tgtctgttga ctgtaaacct gctgaagctt ttaatcaggt agttgaggta aatgttagag 300  
 ttgacgancg aggtgagaac aatgtccaca acaatgcgtt ttatgcggna agagaaatta 360  
 cttaaattct gaagnaattg gcgaancctt actgtggacc nccttttggg cncctattgg 420  
 gtttttagg 429

<210> 3562  
 <211> 486  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-086-Q1-E1-F1

<400> 3562

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 gattcgatcc acactcttaa aatcccaaag atctctctga ttttgaaatt cgattcttcc 180  
 ccagatcaac ttgtgaattt ttccacaatt ttgggttcattg attttgattt cgtgaaggac 240  
 ttatggattc acacccttcc ctaatgggaa ggtccattac caattcgaac cgatcgagct 300  
 tagatcttgg tcgtcttctt tcgtcttctt catcttctcc ttcaccgtta accaaatcga 360  
 tctccgatgc aagtagtcaa agtctctctt cgattcttaa caatccacac ngnnngnaat 420  
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<210> 3563  
 <211> 412  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-A9

<400> 3563

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cggattagca gccgctaaga acttagttca tcacaacccg accgtattcg aagcctcgga 180  
 ttcagtcgga ggtgttttga ggagctgcac ttacgagacg actaaattac aatcggctcg 240  
 agtcgattac gagttctccg actttccatg gcccaataat agagatgaca caactttccc 300  
 accttacctt gagatattag attacttgga atcttatgcc aaacattttg atcttctcaa 360  
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<210> 3564  
 <211> 468  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-B10

<400> 3564

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 cccaatgggc tacactaatg ccatctccgt ctacttttct cgctctctgc ccccgtagac 180  
 cggccaagat ctcggccgtg gcagcaccag tgaggccggc tctaaaacac caaaacaaaa 240  
 tccacaccat gccaccggag aaaatggaga tattcaaatc ttagatgga tgggccaagg 300  
 atcaaattct gcctcttctc aaacccgttg accaatgttg gcaaccgct tctttcttac 360  
 ccgacccggc cttacccttc tccgagtta ccgaccaagt tcgtgagctg aagggaaaga 420  
 acggnctcgc ctgccaagac gaatacttcg tgggtgtttg ggttggag 468

<210> 3565  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-B11

<400> 3565

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 tactaacggt gacggagggt ttagtttccc taaaggaccg gtgatgccga agataacgac 180

cggagcagca aagagaggta gcgaggtctg ccacgacgat agtgggtccga cggatgaatgc 240  
 cacaaccatc gatgagcttc attcgttaca gaagaaacgt tctgctccta ccacaccgat 300  
 caacccaaaac gccgccgctg cttttgccgc cgtctccgag gaggagcgtc aagaagattc 360  
 agcttcaatc tatcagtga tccgttaaca tccttaacga gaagaatcaa gga 413

<210> 3566  
 <211> 451  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-B12  
  
 <400> 3566

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 nnnnnnnnng gcactaaacc caaatccgtc gttagcctcc accggtagca acatcaacac 180  
 aaacgacatc gtgacgcagt acagcacata cgttagaacg cgtgcaacgt aacgcgatac 240  
 aaccgcctct gcgtccgaac gctatggccg ttgcaatcg tcgctcgaaa caacaccagc 300  
 aagtgggctc gagctagcgt cgcggttacc ataaccgaca ccaaacgggt gctgaggctc 360  
 ttgctcaaaa cgcagcgttc agcagttggc gaaagcgaag cgaatcgcgt tgtccggatt 420  
 gccgagaact cntcgtggac tctctcgaac a 451

<210> 3567  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-B4  
  
 <400> 3567

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 ccgatatgtt acacttggng tgtcacttgg ttactttcc aagttctcct tcggaagatg 180  
 gcttcttttg aaattccctt cagttttcag ccttggttgg ttccagaaga aagggtccaag 240

tgaagaagag gtagaaagcg ctacgttttaa gatgtggttc ataggtcgtg ggtacagcga 300  
 atagagtcta gcttcacaag gagaaacaaa gcoctgacttg gaaatcatta caagaatttc 360  
 aggacctgag attggatata taaccacccc gattacactt gttcaatgcg gtttgatant 420  
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<210> 3568  
 <211> 458  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tcccttctcc tgctctccct cgccttcgtg tttcatgtca agcctctctc gtcacttcgc 240  
 cttcttctcc ttccgatgtc aaaggaaaat ctgacctgaa agactttctg gcaatagatg 300  
 attttgacac agccaccatt aaaacgattt tagacaaggc ttcagagggt aaggccttgc 360  
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 gcaaaaactt tcaatgaagg acccggtttt cgttgana 458

<210> 3569  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-B9  
 <400> 3569

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 tcaccgtctc caaagctgat tccaccgtcg ttgaaccgag gaagatagct ctgatcaccg 180  
 gaatcaccgg ccaggacgga tcatactga cggagttcct tctcgaaaa ggctacgaag 240

ttcatggtct gatccgtcga tcacgaatt tcaac,ccca gcgaatcaac catatctaca 300  
 tcgatccaca caatgtcaac aaagctctga tgaaactcca ctacgccgat ctcaccgacg 360  
 cttcctctct ccgtegttgg atcgatgtga tcaaactga cgaagtttat aacctanctg 420  
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<210> 3570  
 <211> 452  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-C10  
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 tgtgagaatg tggttaaagt tcttcagtcg tcttcttcta ctcttaagga tgcattttat 180  
 gogttaaacg ttaatgggat tctaaaatgt aaaattggtg aagctgggtcc taaggacatt 240  
 gtttctcaac ttcaagctgg tggttaaagat gcgaagctat tgcttgattt ctattattct 300  
 gtcagaggct tgggtgctggc taaggagcaa tttcctggaa ctcatataag tcttggagat 360  
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 cagctccaac aatccccgaa tcaaagcact tt 452

<210> 3571  
 <211> 465  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-C4  
 <400> 3571

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 ctttctgctt ctctcttctt gttcatataa caactgaata atgtcgatct ccgccccaaa 180  
 tccggatatt tccggcgata gacaatccgg ccaagatgtt cgtactcaga acgtgatggc 240

ttgtcaagct gtttctaata ttgttaagac ctcaacttggc cccgtcggcc tcgacaagat 300  
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 gttggagggtc gagcaccctg ctgctaagggt tcttgctgaa gttagctgaa cttcaagata 420  
 nagaagtcgg tgatgggact acatccgttg ttaatgtagc tgctg 465

<210> 3572  
 <211> 391  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-C8  
 <400> 3572

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 taggaagggtg cagcantggc taccgctact catctcgac tccttcagct aagcacaagg 300  
 angagtaata aaataattca nnaggcattn ttattacact cttantttta gctgangtta 360  
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<210> 3573  
 <211> 444  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 ctgaggtagt ccttcgatcc tcatcaccgc aaccaatttc tgcccaccaa acttggtctca 180  
 gcctagcgac aacggaggat ggtgcaaccc accacgtgaa cactttgacc tagccatgcc 240  
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gccatgtaga aagagaggag gcataagggt cacaatcaac ggtcaccggt acttcaactt 360  
 ggttctgatn actaacgtgg ctggagcaag agacatcgtg agggctaatt gttaaaagga 420  
 tnacgggact gggtgggatg aatt 444

<210> 3574  
 <211> 456  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 3574

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 gttcaaacia agcaatgacg ctgtcttcta aagatgatgt tttgggtgaa gaaggcaaaa 180  
 cagatataga ttcaccagac actacaaaca cactaaagga tcactctttg gaagatgtta 240  
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 acacacttga gaagaagtca gacgctgagg gtgcagagcc cagggtagaa gctaagcttt 360  
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<210> 3575  
 <211> 430  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 ccgtttccca aaactccacc aaaaccctca cgaaagaatc tgcttcctct ttcgaccact 240  
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tggaacagct cgagaaacga cccttttact tatatagcaa acctcaagat cacganaaac 360  
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<210> 3576  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana  
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 <223> Clone ID: LIB22-085-Q1-E2-A8  
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 cttcgatttc atttctgac atcttacatc agcccgcgac acaaagagag tatcttgatg 180  
 gttgcttaca aaattccgcc ttccagtgtt aaatgctatt tcatgagatg tggacacaag 240  
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 atagctttat aattcatatg gtaagggttt ttgcttcttt tatctgtttc ctccgttttg 360  
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<210> 3577  
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 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 ggaatggcag aacaaaagag tagtaacgga ggaggaggag gaggagatgt tgttatcaat 240  
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ggagttccct ttagtaaaag cccttctcct gaaatctcta agcttggttg tagtcctaac 360  
aagcctccta gagctccaaa tcagaacaat gtgggtctaa ctcagaggaa atcttttgca 420  
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<210> 3578  
<211> 449  
<212> DNA  
<213> Arabidopsis thaliana  
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<223> Clone ID: LIB22-085-Q1-E1-F7  
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<210> 3579  
<211> 414  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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gccagattat tggagaagta ctacgtcctc ttgataacga gcgattgatt gttaaggcaa 240  
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tctggaactc ggagttgtcc tggatatgac tacgngaca attatgcgag cccnttcctc 360  
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<210> 3580  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana  
  
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caagaatatg gataaacttg ctatgaacat cacanccgac caagggaga ctttaaagga 240  
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ccttacanat gggtgaaata tctccccaa tgngtgcgaac gggagtttga tacatatagt 360  
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<210> 3581  
<211> 428  
<212> DNA  
<213> Arabidopsis thaliana  
  
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ccattcgcat tcgcgcta tcttgctgat gcaatcctag tcgcacttat tatcgctat 180  
gttccatata cgaagatcga ttgggatgct tacatgtcac aagtgggttt ctggggggag 240  
agagagacta tgggaacttg naaggcgata cagggccatt gggtttatcc aagcaagggt 300  
tctctatgt ttactctgca gtgcagaact taaactggga aggggaagtc taccctgctc 360  
aagattcttt ttgggtgttc tctacaatt gtcaatcctg ggggatncgt ccttgatca 420

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428

<210> 3582  
<211> 454  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 3582

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tcccatggct agatgggtgac gacgattcac gcataaacta gggttcccc acaaatcatc 180  
ttacacgtat cctctattcc ttccttcctt tctcogtcat catcattttt cccanccgac 240  
aacaatctct cggagtttgg gtattattac ttctctcatc aancaattgt nccactagat 300  
ctcccagatt ccttcattat ctctatcaat aatggcggtt gaaagtcnag tttctgcctg 360  
atggtaaaaa ccaagaaagc tctgttcang atcttcaagt gggtttangn ttanggttgg 420  
cctcntttan nttttgggaa gcatgggcaa acng 454

<210> 3583  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-085-Q1-E1-G7  
  
<400> 3583

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gaaaacagtc tgaggtagtc tccgaggaac aaaaccgtcc taacaagtcc ccaaggagct 120  
ttgacaaacc atcaccgagc aataaaaagg gcaatggttt taagaaaccc aagagcaaga 180  
aggtggactg gagcgttttg aggccaccaa aacctcaaac caaatagggt ttaaattagc 240  
taactacagc aatctatatg ctattagtta catcggttca tatgttctag tacatcgttt 300  
gttgctctgt ctgtatcgtc attcccgtgg tgttgcaacc cgttggataa attatagcca 360  
aaagttttga atttgtttgg gggtaaaann tgtccgttgt tgtcnaaaat 410

<210> 3584  
 <211> 425  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E1-H1  
  
 <400> 3584

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 atgaatcctg tgagaactct aggaccagcc gttgcatcag gaaactatag gtcactatgg 180  
 gtgtatctgg tggctcctac acttgggtgcc atatctgggtg cagcgggtcta cacaggtgtt 240  
 aagcttaacg atagccgtga ctgacccgcc tcgtccgggtt aggagctttc gtcnttaagt 300  
 gagtgagaga cttgtttaca agtcttttgc tttgtataat tttactgtaa gattaagtaa 360  
 tgatatcaaa aagctttgga aagcntgtgt naagaatnaa aggcattgta cnaaaaagtc 420  
 accca 425

<210> 3585  
 <211> 442  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E1-H5  
  
 <400> 3585

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 tgggatcgcc aaaatactac ctgatgggct tttgcagttg acaaatacta cagagttgca 120  
 aatgggtcat gctttcttca agaagccggtt tgattttgat ccattctcat cactatcggtt 180  
 ctatacacat tttgtgtgtg cgcttgtgcc tcctaagttg ggagctgatg gtggccatgg 240  
 gattgtcttt gttgtatctc cttcccattg atctctctca tgcatacgca actcagtaact 300  
 tgggggtcct tcancaaact tancaaaatg gggacttcct ccttaacatc ctgccnagct 360  
 anntgancnt ccathnaccgt taangacatt ngagttnaaa nggagctgga ncaaagccnt 420  
 catgttcggg nattggattt gc 442

<210> 3586  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E1-H7

<400> 3586

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ctcgcctcttc ccttttaatt ttcaccccat tttcttgaag gagatttcta attattctgt 180
gatctaaagt ctgaagcttt gtttggttgc atctcgatga tgatgatgat gatggttgat 240
tgtaaattggg tagtttcggt ttggtttag caagaagcta agtttgtcaa gttaataaga 300
gtattttaag tttttttttt gtnaaatcna tttggtgggt tcaacaancc nacgatcgga 360
naagttttcc ancenttgan taatttgaga ntenggggat ttttacggag aanttcgagt 420
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<210> 3587  
 <211> 406  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-085-Q1-E2-A12

<400> 3587

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gaaatcgggtg gagctcccc atatcttttt taaatagctt tcttcttttg gcccttacc 120
cagagataga ttcttatata ctactgagaa ttttcaattt ctgcaacttt tgtatctctt 180
cctgatggag tcttcaagtc cccaccatag tcacattgtt gaggttaatg ttggaaaatc 240
tgatgaagag agaataattg tggcgagtaa agtctgtgga gaagcaccat gtgggttttc 300
aagattctaa gaatgcttcc ggggatgctc acgaacgctc tgcttctatg cggaagcttt 360
gtatcgccgt cgtgctgtgt ccaatggtca agaattgtga aattgt 406
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<210> 3588  
 <211> 479  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E2-A2

<400> 3588

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caattcctat catttggttaa gaaaaagagt tagaagtatt aataatctta caatatttat 120  
agataagata acaacaatat gaagcattct cacgttttgc ttcttctatt tgttcaagtc 180  
attgcccttt tgccctctct ttgtctatcc gacgattttg ttaactctag agctacttat 240  
tatggcagcc ccgattgcaa agcaaactct cggggacatt gtgggtatgg aagaatttgg 300  
aagagatatc aataacggtg aaattgagtg gtgtttcatg ggcgactatg gaacaaatgg 360  
aactggctgt ggtgcttgtt accaagggtga ngtgcaaaga taccaccaca ctgcagtga 420  
ggaaaggagt atacgtagtg gctacggact ccggaaaaag gaaatggaac ggacttcat 479

<210> 3589

<211> 485

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E2-A3

<400> 3589

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gtcttccaac caagtcacag gatgccaaca atgtgcatag aggatgctgg gttaacagag 120  
atgaacataa tgaatgattg gcaagagcag acgaaaaaag ccattgaaga agcaaccacc 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnncctcgc 300  
ggtgcaggta acaagaaact cacaccttgt ggctgagact agagaccgag acacacatta 360  
tttaacactt tctccctctc ttttgtttct tatttccaaa acctcttcgt tcacttatta 420  
taatgtcngt aatgttatca tccttccaan cctaaancct tanccttcag attttgggg 480  
tcacg 485

<210> 3590



<211> 476  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-A4

<400> 3590

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tccgcttttt gnananggat ctgcttaggg gaatatatga gaagggtttt gaaaaacccat 120
ctcctattca ggaagaaagc attcccattg ctttgactgg tagtgatatt cttgctagag 180
ccaaaaatgg tactgggaan actgggtgcct tctgcattcc tacccttgag aaaattgatc 240
cagagaacaa tgtcattcaa gccgtaattc tagttccaac ccgagagctc gcccttcaga 300
catcccaggt ttgcaaggag ctttccaaat atttgaaaat tgagggttatg gtcaccactg 360
gcggtaccag tctgagggat gatcatcatg gattgtatca acctgtccat ttactgggtg 420
gaactcctgg tagaatanta natnctgcc aaaaagggtg ntgtgttttg aaaaat 476
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<210> 3591  
 <211> 461  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E2-A7

<400> 3591

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gaagatgagc aattggaaaa ctcttctcct tcgcatcggc gaaaaggac ctgagtacgg 120
cacttcctcc gactacaaag accacatcga gacttgtttc ggtgtcattc gtagagaaat 180
cgagcgttct ggagatcaag ttttgctttt tctactacaa tgtgctgaac aattgcctca 240
taagattcct ttgtatggga ctttgattgg tttgttgaac ttggagaatg aagattttgt 300
ccaagaagct agtagaaagt gtccacgcta atttccaggt cgcttttagat tctggcaact 360
gcaacagtat ccgtatattg cttcgcttta tgacttcctt gttgtgcaat taaggttatc 420
aaactngctt ctttgnattg ncgnccttcg aaaacattgg c 461
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<210> 3592

<211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E1-E8

<400> 3592

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 tgggtactgtt tctggatctg tgcgttgaat ccggattctc tcagtcaacg ccggcgcggtg 180  
 acgatcacgt gcatcatcac ggtgggtggg gtagtcattc ncatgaccac gaccacgacc 240  
 acgatcatga tcatcatgtg angaagacga cggcgaaggt ggagatgaag ttgccggang 300  
 aacttgctga ataggacgat atgagattat gtgggtttgg ggccttgtct tcatgatcac 360  
 natcacgaat caangttcac tcntacgggg gtttgctcgg tgggcttant gcattgggaa 420

<210> 3593  
 <211> 422  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E1-A12

<400> 3593

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 tggccccctta ccagagata gattcttata tactactgag aatcttcaat ttctgcaact 180  
 tttgtatctc ttctgatgg agtcttcaag tccccaccat agtcacattg ttgaggttaa 240  
 tgttggaata totgatgaan agagaataat tgtggcgaag taaagtctgt ggagaagcac 300  
 catgtgggtt ttcaagattc taanaatgct tccggggatg ctcacgaanc gctctgcttc 360  
 tatgcggnag ctttgtatcg ccgtcgtgct gtgtcctagt gttcatgagt gttgaaagtt 420  
 gt 422

<210> 3594  
 <211> 423  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E1-A2

<400> 3594

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tgttcaagtc attgcccttt tgcctctcct ttgtctatcc gacgattttg ttaactctag 180  
agctacttat tatggcagcc ccgattgcaa agcaaatacct cggggacatt gtgggatgg 240  
ngaatttgga agagatatca ataacggtga agtgagtggg gtttcatggc gactatggaa 300  
caaatgggaa ctggctgtgg tgcttggtac cacgtgaggt gcnaagatac annacggggc 360  
cntgaggnan gggngtctac gtcagtggcn anggacntcc cggaggaaag gagatgggga 420  
cng 423

<210> 3595

<211> 429

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E1-A3

<400> 3595

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gagatgaaca taatgaatga ttggcaagag cagacgaaaa aagccattga agaagcaacc 120  
accnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnct 240  
cgcggtgcag gtaacaagaa actcacacct tgtggctgag actagagacc gagacacaca 300  
ttatttaaca ctttctccct ctcttttgtt tcttatttcc aaaacctctt cgttcactta 360  
ttataatgtc tgtaatgtna tcatctttct actcttaagc cttagactac nagattttg 420  
attcacgga 429

<210> 3596

<211> 426

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E1-A7

<400> 3596

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cggcgaaaag ggacctgagt acggcacttc ctccgactac aaagaccaca tcgagacttg 120  
tttcggtgtc attcgtagag aaatcgagcg ttctggagat caagttttgc cttttctact 180  
acaatgtgct gaacaattgc ctcataagat tcctttgtat gggactttga ttgggtttgtt 240  
gaacttggag aatgaagatt ttgtccaaga agctagtaga aagtgtccac gctaatttcc 300  
aggtcgcttt agattctggc anctgcaaca gtatccgtat attgcttcgc tttatgactt 360  
ccctgtttgtg cagtaagggt antcaacctg cttctttgat tggtcgtcct ccaaacattt 420  
gctatc 426

<210> 3597

<211> 453

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E1-A9

<400> 3597

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aaaccattaa tctctcttct ctctagcata acctctctca gatggcttct aactatgata 120  
agcttacttc ttcgagagta gccatcatcg gtgctggtgt tagcggatta gcagccgcta 180  
agaacttagt tcatcacaac ccgaccgtat tcgaagcctc ggattcagtc ggagggtgtt 240  
ggaggagctg cacttacgag acgactaaat tacaatcggc tcgagtcgat tacgagttct 300  
ccgactttcc atggcccaat aatagagatg acacaacttt cccaccttac cttgagatat 360  
taagattact tggaatctta tgccaaacat tttgatcttc gcaaattcat gaantttggc 420  
tcctaangnc atcgaagtta aggttcatcg ggt 453

<210> 3598

<211> 428

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E1-B10

<400> 3598

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ctctcgcccc cgtggaccgg ccaagatctc ggccgtggca gcaccagtga ggccggctct 180

aaaacaccaa aacaaaatcc acaccatgcc accggagaaa atggagatat tcaaattcttt 240

agatggatgg gccaaaggatc aaatcttgcc tcttctcaaa cccgttgann caatgttggc 300

aacccgcttc tttcttacct ggacngcggg ccttaccctt ctccgacgtt taccggacca 360

ngttcgtgaa gctgacggaa angaacggnc ctgctggca gacgaatact ttcgtggtgt 420

tggttgga 428

<210> 3599

<211> 436

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E1-B4

<400> 3599

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atattccgat atgttacact tggagtgtca cttgggtttac tttccaagtt ctcttccgga 120

agatggcttc ttttgaaatt cccttcagtt ttcagccttg gttggttcca gaagaaaggt 180

ccaagtgaag aagaggtaga aagcgctacg ttttaagatgt ggttcatagg tcgtgggtac 240

agcnaaagag agtctagctt cacaaggana aacaaancct gacttggaaa tcattacnag 300

aatttcagga cctganattg ggtatatnac caccgccata acacntgttc aaatgcnggn 360

ttggataagt ctgggccaag cgcgaaaagc ctagnntaaa gggaggantn ctacacaccc 420

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<210> 3600

<211> 409

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E1-B6

<400> 3600

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gacgatgacg caattaaata ttgcggttgt ggtttagtagt acggttctta ttggaatgtt 120

gagatcatcg gaggtcaac ttcaaatgaa tttctacgag aagagctgtc caaacgcaga 180

gaaaatcatt tcagatcata ttcaaaatca tatccacaat ggtccttctc ttgcagctcc 240

tctcatccna atgcacttcc atgattgctt cgttagggga tgtgacggat cgggtgtgat 300

aaattcaacc atctggtaac gcaananaaa gatgcaccaa ccganttcta gcaacttnga 360

gaggattcgg tttccgtgng aaaaggatta acggctctgc cttgaaanc 409

<210> 3601

<211> 421

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-085-Q1-E1-B8

<400> 3601

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ttcactccct tctctgctc tcctcgctt tcgtgtttca tgtcaagcct cctccgtcac 180

ttcgctttct tctccttccg atgtcaaagg aaaatctgac ctgaaagact ttctggcaat 240

agatgatttt gacacagcca ccattaaaac gatttttagac aaggcttcaa gaggttaagg 300

ccttgctgaa atcaggggag agaaattatc taccttttaa agggaagtct atgtcnaatg 360

atcnttgcaa aaacttccaa tgagggactc gggtttcggt tgaaanctgg gtttttctt 420

g 421

<210> 3602

<211> 407

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-085-Q1-E1-B9

<400> 3602

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gagaacaacg gntccagatc cgattccgaa tccatcacccg ctcccaaagc tgattccacc 120  
gtcgttgaac cgaggaagat agctctgac accggaatca ccggncagga cggatcatac 180  
ctgacgngt tctttctcgg naaaggctac gaagttcatg gtctgatccg tcgatcatcg 240  
aatttcaaca cccagcgaat caaccatata tacatcgatc cacacaatgt caacaaagct 300  
ctgatgaaac tccactacgc cgatctcanc gacgcttctt ctctccgctc ttggntcgat 360  
gtgatcaaac ctgacgaagt ttanaaacct agctgcncaa tctcacg 407

<210> 3603  
<211> 409  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-085-Q1-E1-D11

<400> 3603

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tcaaaagggt ttgatataata gctttgttgc taaaggaaca gttgttctag cagagcatac 120  
tccttattca ggaaacttta gcaccattgc tgttcaatgt ctgcagaagc taccacaaaa 180  
tagcagcaag tatacttact cttgcgatgg tcatactttc aatttccttg ttgacaatgg 240  
ctttgtgttt ctagtggttg ctgatgagtc caccggaaag aagtgttcct ttcgtgtttc 300  
tcgaacgggt caaggaagac tttaagaagc ggtatgaagc gaagtataaa agaatgatga 360  
gccgacatcc tcttgccgga tgangacgaa agatgatgat ttgtttggg 409

<210> 3604  
<211> 407  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-085-Q1-E1-D8

<400> 3604

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 tcgctgaact aacaagtcta tggaagaagc aaagaccctt gttttacact gtatgttgtg 180  
 aggaatttgt ctgatttttg gtgataaagg tgaagtcttt gagtttgtaa ttttgagata 240  
 agattggatg gtgggaagag aggatgccga tggggaatga tgaagctcct cctgcgntct 300  
 aaagaaaatg ttttgggcgg tctgccctcc tggtcctgct tcacgggacn gncatcanca 360  
 agttcctgaa nggtgacgaa gcaaangcct gaacatttcc ggtntgc 407

<210> 3605  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E1-D9  
 <400> 3605

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 caatgcctgt ttaatagggtg ttgaaacttt gctgaaaaaa aacgaagcga gcaccctcta 120  
 aaatgccttc gatttctctg gcgccattga tttagttttc tctctctgac tacaaagtat 180  
 ccattcgttc aaaccagttt cttcccatth tcgatttctg tcaaaattca ccaaccaact 240  
 ccaaaaactc tgttattgaa taagtttctt gatcttaaaa caaacgatct caaagaatgg 300  
 cagcacacga tcctaattcca tttgctgatg aagagatcaa tccttttgcg aatcatacaa 360  
 gtgttcctcc tgcgagcaac tcttatctca agccaanttc a 401

<210> 3606  
 <211> 401  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E1-E10  
 <400> 3606

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cagagataga ttcttatata ctactgagaa tcttcaattt ctgcaacttt tgtatctctt 180  
 cctgatggag tcttcaagtc cccancatag tcanattggt gaggttaatg ttggaanatc 240  
 tgatgangag agaataattg tggctagtaa agtctgtgga gaagcaccat gtgggttttc 300  
 anattctaag aatgcttccg gggatgctca cgaacctctg cttcatgcgg aagctttgta 360  
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<210> 3607  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E1-E11

<400> 3607

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 aatctcccat ggttggttaca tctgccaatg ttatttactt gtctgcaatt ctgggtcgcg 180  
 attgcgatgg acacaaatgt gattggaaat gtgagaatga aaatgtttgt gggaatatgt 240  
 atcgctgcaa actaactgga ctaactcatg tctgcgacaa gaactgtnac cagcggattc 300  
 tctatgataa ccatagctct ttgtgccgag ccantgggag gattttccct ctctcgtccg 360  
 tcgangggagc aangcgggtt aaagggtgtt cggganggaa agccttga 408

<210> 3608  
 <211> 371  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-085-Q1-E1-A11

<400> 3608

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 agctattgct gaattgtgtg gtttgaatca tattgaanaa gctgctgtgc ttagtacntg 180  
 taaccgtang gagatttatg ttttancctt atctcagcat cgtggagtta aagaagttac 240

tgaatggntn tcaaagacca gtgggatccc aagtttcaga gatttgtcaa cacngttttc 300  
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 actcctcttg t 371

<210> 3609  
 <211> 474  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 3609

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 atctctcaaa ctcagtctcc tatctgtctc tctgcaaact attaccaacc agataattta 180  
 gatatggaag ctactcagaa acatatgatt caagaaggat cttcaatgtt ttaccatcaa 240  
 ccatcttcag tcaaacaaat ggacctttct gttcagacat ttgattctta ctgcacactt 300  
 gaatcctctt caggcaccaa gtctcatcct tgtcttaaca acagaaacaa ctcttcttca 360  
 nccacaagct tttctcttaa tgaaagtccc atttctcaag ccaacancaa cancttatca 420  
 aaggtttaac aatcantccc ctggaagaaa acaataactc ctccccttga ancg 474

<210> 3610  
 <211> 506  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E2-C11  
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 ctggctcatt gggggtgatc ttgaggttct tgagccagtg aagtacaatg atgggcttga 180  
 tcgtttcagg ctttcgctg ctgagttacg taaagagttg gagaagcgta atgcggatgc 240  
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tactcgtagg agacttcttg agatgggtta caaaaaccct attcttttgc ttcacccgtt 360  
angtggggtt acaaaggctg atgatgttcc tttagattgg angatgaagc aacacgagaa 420  
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tatgcattac gctgggtcca accgaa 506

<210> 3611  
<211> 471  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-C3

<400> 3611

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gagcaagacc tccatgtttc ttctgctgtt tgggaaggac aggaacgagg tctacttcgt 180  
tgtcaagaac acacttcatt gctacatcaa tggaaactca ctgatgaaca aattaacctc 240  
gtggacaaag ctgggttcgg ttactttcgc aaaatcggtc caatgaagtt taaacaattc 300  
actgatctcc tgcacttggt gagcgatgga gaagagaaac caatactttt catecttcct 360  
ttanggagaa aatgactata accttaaacy aagtttgcct taantaactt gggacttgag 420  
aattgatgga gattccaatt gttgggtccn aaagtttggn gatgaagggt g 471

<210> 3612  
<211> 527  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-C8

<400> 3612

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tatgagagag tgtttggtga tgaagagaag cttaacaagt ttctgagatg gagagttcag 180  
gttttgagaa aaggtgttaa aatgcttcat tttaaacctg gtggtgttaa ttccattatt 240

caagttacag atcttaaaga tatgcctaag agagagctta gagttgcttc taatcagatc 300  
ctctctcttt ttcaagataa ttaccctgaa ttgggtgcta ctaagatatt cataaacgtg 360  
ccttggtact tcantgtgat ctactcaatg ttcagcccat tcttgactca agagaacaan 420  
gagcnagttt gtgatgtcca aagaaagcaa tgcancanaa aactcnaaa attncatnag 480  
gccaaaaaat tcccgggcna nacggggggc ctnaaccctt ccaaaag 527

<210> 3613  
<211> 475  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-D10

<400> 3613

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ttttggaact agaggagggt gatccctttt tccatcgtga ctccagtggat ttttctctac 180  
gcatcaaaaa acgccttgag gaatcaaaaa agctgcagag agatcttcag aatcgtatca 240  
gaaaacgtat gaaaaagttt ggtgaagaaa agctttttgt tcaaaagact ccagaaggtg 300  
aagctgtcaa gggatttcct gaagcagagg tgaaatggat gtttgagag aaagaggtgg 360  
ttgttccgaa agctatccag ctccatctac gccatggttg gaaaaagtgg caaggaagaa 420  
gcaaaagccg attttaaaca gaaacntttg ggaaaagttg aattttggca aacaa 475

<210> 3614  
<211> 489  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-D3

<400> 3614

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cacctctttc tccgccgctc agaactccac gtgtcctctg gacttttccg tccttgaacc 180

gttcggcggt ccgaaacccg atggcgccac cacctgccag tacctcctcc aagggtctac 240  
 cctcctctac tctcaccatc tccgtcagac gggttccttt ctcccggcac ctgagtctgc 300  
 tgcttcttgc tgggctgctc tccagtcttc cgtcgccggg ttccctccctc gctttgacgt 360  
 ccgattcaac tgcgggtttcc aanacgccgg tggatttcgc aaggggtgat ggacatcaac 420  
 caaccaaggt ctcaaattcc aantccctta accctaaatc ctccctcggc nacaacggcc 480  
 aatccgctg 489

<210> 3615  
 <211> 475  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E2-D4  
 <400> 3615

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 aaagtggaca aacatcggta ttttaatctc ctctcgataa tgaagtgttt cttgttctct 180  
 ggtggggata agagagggga acagaagacc cctatttcgg ttccattgac ctctatcttc 240  
 tctgaccgag aaataaaccg aagcgggtca gatttcaact ctctgatgt ctctgggacg 300  
 agcacagaat catccatggg gaggaagaac tcgtaccctc cgggtgtctac tanagcaaag 360  
 taatctcaga gatttcagca ttactgatct caantctgca acaaagaact ttagccgatt 420  
 ctgttatgaa ttgganaaag gcggtttcgg ttgtgtcttc aagggggcac nattg 475

<210> 3616  
 <211> 478  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E2-D5  
 <400> 3616

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 tataaagtgg ctctaggtat agctgatggg ctgagttatc ttcataatgc ttgtccaaga 120

aggatcattc accgtgacat caaagcttct aacatattgc tcaaccacga ttacgaagct 180  
cagatttcag atttcggact tgcaaaatgg ctcccagaga actggcctca ccatgttgta 240  
ttccccattg aaggaacatt cggatatcta gctccagagt atttcatgca cggcattgtt 300  
gatgagaaga ttgatgtggt tgcctttgga gtattgcttc tagagatcat aaccagtcgc 360  
cgagctgttg atacagcaaa gcangcaaag cattgttgca tgggcaaaac cttttcttga 420  
gaaaaatanc atgggaggac attgtngatt ctccgntaag gaaatatgtt aaaccaac 478

<210> 3617  
<211> 467  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-D6  
<400> 3617

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gataaactct ctcgattacc taatactacg tcgtattaca tcgttcacag annnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnngg' cggatgaagga tcatcggaga 240  
gctggttcga tgtcgatgtc tttcgtgtgt agggaagctt taaatggtaa tctgatcgaa 300  
gcttttaggtg gaggattaat gaaaagcaga tctatggctc atgttcccaa ggattatatt 360  
gttanggtt tgacgaaaga agaagacggg gaaattgaat ctacgacggt taagaagaag 420  
actgggtttt ggactaantt gctcacctaa agggaaaggc ggtggcn 467

<210> 3618  
<211> 472  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-D7  
<400> 3618

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agagaaacga gagacaagtg attctttttc ctctaccatt acaaggttgc ataaacccta 120

tgcttcagct agcaaagatc ctttactcaa gaggtttttc gatcaccatc atccacacgc 180  
gcttcaacgc gcccaaattc tcagaccatc ctctcttcac tttcttataa atccgcgacg 240  
gcttgtctga atctcagact caatctcgtg atcttttgct tcaactcacg cttctcaaca 300  
acaattgtca gatcccatc cgagagtgtt tggctaaact cattaaacct agttcagatt 360  
caggaacaga ggataggaaa attanctgtg tgatcgatga ttccggttgg gtttcacaca 420  
atccgtggcg gaaagttaa acctcctcga tttgcctccg tgctaaaagt tc 472

<210> 3619  
<211> 543  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-E1  
<400> 3619

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agacgaactc accgtcgaag aacgtaattc cctctccgtc gcttacaaaa acgtcatcgg 180  
agctcgtcgt gttcgtgga gaatcatttc atcgatcgaa caaaaggagg agtctcgcgg 240  
taacgatgac cacgtttcgt tgatccgtga ctacagaaa caaaatcgaa acggaacttt 300  
ctgatattctg tgacggaatc cttaagcttc tcgatacgat tctccgttcc cgctgctgct 360  
tctggagatt cgaangtgtt ttatctgaan atgaaagggtg attaacatag gtacttggct 420  
gaattcaaat cctggtcaag aagaaggaaa gatgcctgcc ggaacatact cttactgnc 480  
ttacnaannc tggctcaang gataattggc taaattcctg aaattggggt ccaangccaa 540  
tcc 543

<210> 3620  
<211> 462  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-E1  
<400> 3620

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gatgatccat tggttccaga gattgctcac atgtacaaaa ccgatagagc aaagtatgag 180  
tctactgcga gaagctggac tcagaaatat gcaatgggat gaaagtttgt gtcctttgat 240  
ccctcacaga ctcggtttta nnnnnnnnnn nnnnnnnnnn nnnnnngact tcttcacata 300  
gggatcttcc atgaaataag ttagattcct atgttttacc atctctttgt ttgaaacctc 360  
tttaattctca aacaaaaaca ttacttcacc tctttattat ccatatgttc cctatctttg 420  
tttctatgcc ttttcccaa aaattataag aaaaattatt ta 462

<210> 3621  
<211> 471  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-B7  
<400> 3621

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tgattcgatt caagccaaga tccacgtata aagatatgtt catgcgtaga ggtttggtat 120  
acaacaatat atacatataa tagtttgctg ttatgcctgg ctccctgtat gccacgagtg 180  
gataccgatt ttggttttaa aatcggtctgc cgggtggcgta caaggagtca agcatgacca 240  
gaagcatatg gtaactcaat tgcatttaca actaaatatg aaatatctag ttatgtatat 300  
ggtttggtgt ctataagatg ttttcttcga attttgattt ttgtgttcat ttgaataagc 360  
aaacagaaat aaaaccaagt tttgtagttt tttgctttct ttctgatttg gtccaatggc 420  
tttgattcag gtttgagttg atccttttaa ttcatttga nttaaatttg a 471

<210> 3622  
<211> 484  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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<400> 3622



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tgaagatggc atcaaacgga tctttctctg ctcagagaaa cgcaaacgct agaacaacga 180  
tgaagagaag aagcgacaat cgcggttacg gtggcggaat cggagggtat caagaggaga 240  
cgaaccgtta cgcgcgcg ccg caaaaacggt tcagatcaca agcgcaacag caattccgat 300  
ctggtcataa tcctctgtat catcatcatg gtaagtaata ataataacgt gtctagggtt 360  
tcttctcaat catataacaa ttgcggtggt gatgtgattg gttccaaatc aagttttgcn 420  
attacgttac aatgantcca acacaacaaa ttacangaaa cccttggttg ccgggtaagg 480  
aanc 484

<210> 3623  
<211> 531  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-A3  
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ttagcaaaag aatttgaaga aaacacaaga tcaaactcca tgtgtgggac tacggagtat 180  
atggccccctg agattgttcg tggaaaagga catgataagg ctgccgactg gtggagtgt 240  
ggaatccttc tgtatgagat gctcactgga aagccgccgt ttctcgggag caaaggaaag 300  
atacagcaga aaatcgttaa ggacaagatc aagcttccac agtttctgtc taatgaagct 360  
catgccttgc tgaaagggct gctgcaaaaa gagccagaaa ggagactggg aagtggaccg 420  
agcggagcag aggagataaa aaaacacaaa tggttcaaag gcgataaact ggaagaaact 480  
gganggctag agaaatncaa ccaaatttca agcccggcgg ttccgggaa a 531

<210> 3624  
<211> 505  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E2-A4

<400> 3624

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acaaggatct ttgttggtga tgagagggaa cagtgcagac atggcaagac atgtaatgtg 180
tccatcacaa tgacaaaaga agtaagcatc acattctttc gtattcgacc ttgacacata 240
tcatagccat tcacaaccca gcagtcctcg caacgacggg gtcattgacaa tgtggcnncc 300
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gccaaaaact tggagtcccn acgtcctcca attggtcang attgnaccaa caaccgggtt 420
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gnttttctta acaaaggggc cccgg 505
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<210> 3625  
 <211> 474  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E2-A5

<400> 3625

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tgatttttgt ttagcaaaag aatttgaaga aaacacaaga tcaaactcca tgtgtgggac 120
tacggagtat atggcccctg agattgttcg tggaaaagga catgataagg ctgccgactg 180
gtggagtgta ggaatccttc tgtatgagat gctcactgga aagccgccgt ttctcgggag 240
caaaggaaag atacagcaga aaatcgttaa ggacaagatc aagcttcac agtttctgtc 300
taatgaagct catgccttgc tgaaagggct gctgcaaaaa gagccagaaa ggagactggg 360
aagtggaccg agcggagcag aggagataaa aaaacacaaa tggttcaagg cgataaactg 420
gaagaagctg ggaggctaaa gaagtncaac caagtttcaa gcngcggtt tccg 474
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<210> 3626  
 <211> 482  
 <212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-083-Q1-E2-A6

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gatggagagt tcagggttttg gagagaggtg ttaaaatgct tcattttaaa cctggtggtg 180  
ttaattccat tattcaagtt acagatctta aagatatgcc taagagagag cttagagttg 240  
cttctaataca gatcctctct ctttttcaag ataattaccc tgaattggtt gctactaaga 300  
tattcataaa cgtgccttgg gtacttcagt gtgatctact caatgttcag cccattcctg 360  
actcagagaa caaagagcaa gtttgtgatg tccaaagaag gcaatgcagc agaaacactc 420  
tacaagttca ttangccaga aagatatccc ggtgcaatac ngtgggtcct aaccctccca 480  
ac 482

<210> 3627

<211> 513

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-083-Q1-E2-B1

<400> 3627

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nnnnnnnttat ctttatccga taaaccaca aataaagaca gactcttttg ttctttaaac 180  
agagattgta aatccagagc cgccggaaaa tacaaccgcc ggtttactct caggattagt 240  
tgatattatt cgattttaaa aatcagtagg aagaagatga agtacgtgct tgtaacagga 300  
ggtgttgtga gtggattagg gaaaggagta acagcaagta gtattgggtg ttctccttaa 360  
agcttgtggt cttcgagtta ctctatcaaa atcgattctt atctgaacac tgatgcctgg 420  
aactaagtct ccaatttgaa cacggtgaaa tttttgtcct ggacgatggt ggtgaagggtg 480  
gtcntggatc ttgggaacta caaagggttc caa 513

<210> 3628  
 <211> 495  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E2-B10

<400> 3628

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 aatcgcccc ttacgcctca agaggaatta caaccggttg gacaaataag ggaagcatct 180  
 aataaggcaa aactgcaga actcaagctt tttttggaag tagagcacct ggatttacgt 240  
 cctattcctc ctctgaaaa atcaaaagaa gatattcttc ttttcttcaa gctttatgac 300  
 cccgagaagg cagtattaag ctatgctggc aggetgatgg tgaaaagttc cagtaagcct 360  
 atggatataa ctggaaaact gaatgaaatg gttggctttg ctctgatga agaaatagaa 420  
 ctttttgagg aaatcaagtt tgaaccttgt gttatgtgcg aacacttgga taagaaaact 480  
 tcattcagat tgtgt 495

<210> 3629  
 <211> 492  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E2-B11

<400> 3629

nggccgcaaa ggtccggaac tcncgggtcg acccacgcgt ccgcntttaa ntgaaatcgg 60  
 tttcgagaga cagtgagacg aanatgttaa ggattttggg gagaagagtt gtttcagctt 120  
 cgaaagagct tactagtatt caacaatggc ggatccgacc aggaaccgat tctcgtcccc 180  
 atccttttcg aactttccgg ggactacaaa agggtttctg cgtgggcatt ttaccggacg 240  
 gagtcgacag aaattcggag gctttttcta gcaattcgat cgccatggaa gggatcttat 300  
 cggagcttcg ttcccatatc aaaanggtat tggccggang tggagaggaa gcggttaaga 360  
 ggaacagaag cagaaacaag cttttgccta nanaanggat gatcggctac ttgatcctgg 420

ttcttctctt ttggaactct ctcagcttgc aggacatgaa attgtatgag gagccctttg 480  
ccctcaaggt gg 492

<210> 3630  
<211> 510  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-B2  
  
<400> 3630

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actatgagtg tgaatgccca aggccatgaa atccaaaatg gtggtggaac aacaagccag 120  
ttctcatcgg ctttgtgggc attaatggac tcaatacctt caacgccagc ctctgcgtgt 180  
gaggggtcccc ttaaccgaac ctttgtacgt atgtctagct tcagccgtat gangttcaat 240  
ggaaaggcta atggaacgcc agtgagtact accatagcaa agaanggtat taganacaga 300  
ngttttcttc tattaacaat ccgtgggtgc tttgtgtgcc atccttctg ggggtgttgt 360  
anccacaatt ccgagtctca aggttagaaa gtcctccctt tgaaangact aattggtggg 420  
ttccccttgg gaactcctta actaactggg taagtttaag aangaagaaa ccagggattc 480  
cacattaatt gttcaatggg gaattattga 510

<210> 3631  
<211> 524  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E2-B4  
  
<400> 3631

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gtctttgctg gtaaggtttc tactggtatg aaggtcagaa tcatgggtcc caactatatc 180  
cctggtgaga agaaggatct gtacactaag agtggtcaga ggactgtcat ttggatgggt 240  
aagaggcaag agacagtgga ggatgtccct tgtggtaaca ctgttgctat gggtgggctg 300

gatcagttca tcaccaagaa tgctacattg actaatgaga aggaagttga tgctcaaccc 360  
 attcgtgcta tgaagttttc tgtgtctcct gttgttcgtg ttgctgttca gtgtaangtt 420  
 gcntctgacc ttcccaagtt ggnthanggt ctcaagaagt tggncaaatc cgattctaan 480  
 ggttgtgtgt acaatgggag gaacaagggtg ancacattgt tgcc 524

<210> 3632  
 <211> 506  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E2-B5  
 <400> 3632

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 acaactttga atttttcacc ctcaactttca tttatctcaa atctccttcc agaaaagcga 120  
 gggaatagtg ttgttgagag gtttgtgatt tccttttgaa aaaatgatgg cttgtggcctt 180  
 aagcaagagc cttggccttg cttcctcctt gaagaagcaa caaggcatag tgagtatcct 240  
 tgggtggcatt tcgtcgaaca cttcatctgc accttcactt aggcgaactt tctccgccga 300  
 tttgtcctcc aagacttggg tttcccaaaa tgggttttct cctatgaaga gaatctcttc 360  
 ctctgagaa gcttcgtcct gacgaagaan atcagnanga angaatcaan nttcgggant 420  
 cnatntcctg gggcaacaga ttcaacaang acaaggaacg ataagcnnga agngaaggan 480  
 cagatcaagc cgggggtcaat tccgga 506

<210> 3633  
 <211> 528  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E2-B6  
 <400> 3633

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 acgcgtccga tttgggtgtac ctgttcagtt acagaggttc tggatttggg caaagagaca 120  
 aaaccatacc tatcgtccca atcgccccct tacgcctcaa gaggaattac aaccggttgg 180

acaaataagg gaagcatcta ataaggcaaa cactgcagaa ctcaagcttt ttttggaagt 240  
 agagcacctg gatttacgtc ctattcctcc tcctgaaaaa tcaaaagaag atattcctcc 300  
 tttccttcaa gcctttatgg acccogaaga agggaaantat taaccaatnc cnggcaaggc 360  
 tggatggtga aaagttccaa gttaagccta atgggatata actgggaaaa actgattgaa 420  
 aatggttggc tttgctccgg atgaaagaaa ttanaacttt tganggaaat caagnittga 480  
 acctggggta agttgcaaaa ccttgggtaa aaaaacntca atcaaaat 528

<210> 3634  
 <211> 487  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E2-A11

<400> 3634

gtaaangtcc ggaaagtccc gggtcgacnc acgcgtccgg ctctctttct ggtacactca 60  
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 tttttgtttt ccttctccgg cgaatccccg gggagattgg taatcggtaa tcacggctat 180  
 ttacgggata aagccacggc ctttgagctt tcatgtccaa cgaaagggtt gtttaatcat 240  
 aactaatcct ttgcctcacg gaggacgtgg agctctgccg tctgaaggcg gcagtccttc 300  
 cgatctcctc ttcctcgccg gaggcggttc cacaatatagc cactaacctt aacccttttt 360  
 ctaattaggt ttttagttct taagagtcct gtattaatct gttatttcga gattataata 420  
 tttgtgagca atgttggtga agatnaaaaag agtccaacag ttgtatcgaa ttatcaaaaa 480  
 gatgaga 487

<210> 3635  
 <211> 478  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-E8

<400> 3635

acgcgtccga gaacaaccaa atttgtttcc gtcttctgct aacatatact ctttttcac 60

tgggaaccct aatttcttga ctaacttagg gttttattta tccatttgag atactctgta 120  
 attgaaaggt tgaattttta gaagagacat gggagggttcg tcggagacaa agatcttaca 180  
 agaactcata ctttacgcgg cgagcgctgc tttcagctgc ttggttctct ttgcgggtct 240  
 tcgtcatctc gatcctaatac gtgaggcttc taaaaaagct ctcgagcata agaaggaaat 300  
 ctctaaacgt ttgggtcgtc ctcttggtca gaccaaatac atacgangaa tgtaattgca 360  
 tgtgatgttg ataaatccaa gaaccacatt tgatgttgga gtttgggttc aattggaggg 420  
 gttggagacn tccaagncag gctttgtatg aancttgtga tttaaccacg gaaaaaga 478

<210> 3636  
 <211> 476  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-E9  
  
 <400> 3636

acgcgtccgg aaaggacgaa gaagagaaga agaagaacct tacaattgct tttgtaaata 60  
 ttgtaggttag tttaaggacg tcacttccta catacatgga tttatgtgga actcagatgc 120  
 tgcgcctctc atcgccctcat ttcaaaaccc ttcatttggg gaggcattgca caaggagtcc 180  
 acaatatagc attagaanag aaggagagaga aacctgaata agaaaagctt tttgacgccc 240  
 acctttctcc aaagggtttg caacagggtt cggaaggcg canccaaatc cttgaatcag 300  
 gattacttan cactgtcgag ttagtgataa cctcnccgct gtgcangagc antggannct 360  
 tcaataggaa tatttagggg gacaaangat atgtaaatat atcccgangg actttgcaaa 420  
 agcctaacaa cttncctcc aattngtagc anctttgaga ttctgttnaa gaacgc 476

<210> 3637  
 <211> 471  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-F11  
  
 <400> 3637

acgcgtccga tacnctcttt tgatggctgg aggagagaaa agaagaggac ttagtaaatc 60



ttgtgctctt cccatagtga ttgctgggat agagagatat gcattcaaag gagttgcatc 120  
 aaacttagtg acatatctaa ctgatgtagt gaagatgagc aattcaagag cagccacgac 180  
 tgtgaacact tggagtggct tcactttcat gttgcctctc ttctctgctc cttttgccga 240  
 ttcttattgg gacagattct tcaccatcct tgctttctct tctctctact ttgtgggtct 300  
 agtgggattg acatttaagg catttgctgg gtcacgttcg actacanaaa caatctctcc 360  
 ttttaacttcc ccacaactca cttttcctcc gtcgctccta ggcttgggg tccttaaacc 420  
 ccatcctcta caagncttg gtggctgnac aagctccgac tacgaacctt t 471

<210> 3638  
 <211> 531  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-F4  
  
 <400> 3638

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 nnnnnnnnnn nnnnnnnnnn nnnnnnattc atctaaaaca atttcgatcc atttacacat 120  
 aaatatatgt aactggccgt agaagaaaca cattgaagga agannnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn tgccggacatt tccagangca gttttccaaa gggctttgtc ctttgggnact 300  
 gcttcttcgg ctttcagcat gaanganccg gtgaangnag aacggcagan ggcccnacga 360  
 tatnggaaca cattttccca cacctttggg aaaaatcnac cgnatttanc caatggctga 420  
 tgtccccngt tgattcagtt atcaacctta cnagggaana atgttcaacc tnatngaacg 480  
 aataatggga aatggncnc taacagaatt ttcccaattc cttggacccc n 531

<210> 3639  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-F8  
  
 <400> 3639

acgcgtccgc ccangcgtcc gcggacgcgt gggttcgact tttcctctct ctcttatata 60  
aattatatat tttgctttgg tttttttttt ttcaccggat cgatcgagaa gagagaaaag 120  
ttcatcttct tcttggtctg attgtttgac aagttttacg acaatggcgg tttacggcga 180  
gaagaagcat tgggtggctcc gcaacaagaa gatcgttgat aaatacatga aagaagcaaa 240  
gagtttaata gcgagtcaag atccaaacga cgtgaaatca gctctaaatc ttctggaatc 300  
tgcantctct gtatctcctc gttacgaact cgctcncgaa ctcaaagcca gatcccttct 360  
ttacctcogt cgatacaaag acgtcgccga tatgcttcag gattacattc ctagtcttaa 420  
attagccggc ggcggcgaag attccggtat cngttcatct gagcttt 467

<210> 3640  
<211> 461  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E1-F9  
<400> 3640

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gtaattttct tcgaattaga tggtgtttct ccgtcgaatc gccgtcgtct tctttgtctt 120  
cacctctttc tccgccgtc agaactccac gtgtcctctg gaacttttccg tccttgaacc 180  
gttccggcgt ccgaaacccg atggcgccac cacctgccag tacctcctcc aagggtacg 240  
cctcctctac totcaccatc tccgtcagac gggttccttt ctcccgccac ctgagtctgc 300  
tgcttcttgc tgggctgctc tccagtcttc cgtcgccggg ttctctcctc gctttgacgt 360  
ccgatccacc tgcgggtttcc agacgcgtg gatttcgcan ggggtgatgg acatcaccac 420  
caggtctcaa ttcgagtccc ttatccctaa ctctccctc g 461

<210> 3641  
<211> 502  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-083-Q1-E1-G1  
<400> 3641

ctggttgccct gngcctaccg gcccggaat cccgngtcga cccacgcgtc cggtttttta 60  
 ttaccctggt ttataaacag aggaagccct aaatttggat tctctattct aaagttttct 120  
 catttcgcta attttggaga aaaacgattg ttttttttaa tcgtttcttc atttctgatt 180  
 catttttctt ggtttatgat ctgttcaagt aaaggaacaa tcttaatcgc tagaggtaaa 240  
 aattcaaata caatccctag attacccta aaagggatcat ccacaaatta cgcgaatcga 300  
 attcaaattc gaaacccaat cagtgtcaaa actttccggc gatcatcttc atcgtcaatg 360  
 gcggtggaaa caatgtcgat gggatcagat tcatcaactt tgattctaac atcangagca 420  
 aagcggtcgc gttanggtac ccntcctcga tgccaagagc ttaaagcgtc tcgttaagan 480  
 taancaatcg ttgaatcctt tc 502

<210> 3642  
 <211> 463  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-083-Q1-E1-G11  
 <400> 3642

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 ggcggttaca cgacgggttat cgatgtcatt gactgtaccg gagttcgatt tcagattgac 120  
 gccacagttt ggttttctcac agtcaccgat cggggagcgt aatttcgcgg atgttgataa 180  
 tctggagaac tgtattaagt atttgaatca gagcttagtc acctctggat tctctgcttc 240  
 gcttgacctc ttcgctaccg atcctgtttc gattgctaga acttgcaatt gcgtatacgc 300  
 tttgattcaa cagaggcaac gagatgtgga atttagagaa tctgctaatt atcagagaca 360  
 acgactttta tccgatatgg gcgagactcg aagcaaaagt tgaaaggctt gagactcaat 420  
 tggcaagcta aagaaaggga aacttggttc ggtgacaaga acg 463

<210> 3643  
 <211> 505  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-G3  
 <400> 3643

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 cgtcactcnt cactcaataa aaaagctact gcttcaaagc tctacttcnt caatttactc 120  
 tcattegttt gcgttgatgt agcaaaacaa aaaccaaagt ggttcccgtc tcgtttctgct 180  
 tentctttct ccttctcttg ctctctgctg gagagagttc atcgcantta gtttctgggc 240  
 cacacatcac cgatgttaac atactcntac ctcccaagat gaagaatccg gttgagtatc 300  
 gccttcaang aagtgatggc tgcttcaaagt ggtcatggga tcatcatgat attctatcaa 360  
 gtcacacctg agtttaattc gagcagtcac tgttcgacca gcgcgcgtct caaatcgatt 420  
 tctccggtat agtggtagaa aaggagactg cagtttatgc cactgatata cnagactggg 480  
 atgggtgatt cgctgcaang tcttt 505

<210> 3644  
 <211> 470  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-H5  
  
 <400> 3644

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 tggtgagcag cagagaaggc aagtagaagc tgatgagctt gagagagagc ttaatttgta 120  
 taggagtggc tctgctccac cgactgttga tggttctggt agtgctgctg gagggtcttt 180  
 tagcggcgga ggtggggctc cttttttgga gtttgggtga ggcaacaagg gtaatgggtt 240  
 tggtgggcat gatgangagt ttaggaaaga tccggcttac ttgtcttatt actatgctaa 300  
 tatgaagttg aatccgaggt tgccaccgcc tttgatgtct anggaggatt tgagggttgc 360  
 tcagaggctt aaaggagta ataaatgttt tangtgggtg ttggggataa ngaaggaaag 420  
 ttaattgata gtcaaattct taanctctaa tgccacctgg ttttgatcaa 470

<210> 3645  
 <211> 507  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-083-Q1-E1-H6

<400> 3645

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cctctcgccg ctaattaacg ccgtctctgg ttgctaccac cgccgtaacc ctaacggcat 120  
ttttaatggc gtcgtgtgat gacgatttct ctctacttgg agacgatcag tcaaacccta 180  
atcaacatca ccaccaccac caagttcttc atcacacgcc ctacgtcct agacgattca 240  
acccgaaacc atcgaatcag atccttttac cgcacacca gaggaacggc gacgaggacg 300  
acgagaacga tgcgttgta gaagcgtctt ctgctttcca cggtcacggg gttaatcctt 360  
tcacggcgga cgaatttcg aatccgtatg atgataataa cgcagctgta gacgaagacg 420  
aaagacgaaa gatctcgggtg ccaacagatt tagaatcgga ggtgttcgtg ttganaaana 480  
gggaagagtc agggaggaac taagtna 507

<210> 3646

<211> 495

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-083-Q1-E2-A1

<400> 3646

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cacaaacaag ttctttctgc tgctcttcac ctttcacaag gttgtggcta ttgggtttgt 120  
aggcttcctt gtcttcagag gcgttcaagg tctaattgga tcaaatggta gcgtcaaaag 180  
gaaagagaaa aagatcctca gattcttact tccacaagtc gaagctgcat cgctcttgag 240  
catcattctt gcattccttt ggcaaatggc attcaggatt tggcctgatt tcatgattca 300  
cttcatactt tggagtacgt ttttgatgtc tttatcctca aggaatcctc ctactgtgtt 360  
tcagatgcc agccactgat gctgttggg tttgcctcaa ttgccttctc aattgggcaa 420  
ttgggtaana atgccttgct gggtcactcc gtaanaatca agtttcngtt ccnaaagatt 480  
ttgggtcaaa gtccg 495

<210> 3647

<211> 473

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-083-Q1-E1-E6

<400> 3647

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tggatgtttt gggcaagaaa cagagagaaa cacgttaatt tgagagtttg tcattgaata 120  
tttggtttgc aatggaaaga gattttctgg gtttgagcga caagcagtat ctaagtaata 180  
acgttaagca tgaggttaac gatgatgctg tcgaagaacg agggttaagt acgaaggcag 240  
ctagagaatg ggggaagtca aagggttttg ctacttcaag tttcatgcct tcttcagatt 300  
tccaggaggc taaggcgttt ccgggtgcat accaagtggg ggatnagttt ctgcgggcaa 360  
tgttttccgc agatgccaan ttgggtggtgc gtttcaaaaa cgcgacgccg cntttaataa 420  
ggcgggtcaa ttcccttaac aactcaacc ttccccttgt tccaacgagt ggc 473

<210> 3648

<211> 475

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-082-Q1-E2-C12

<400> 3648

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aatacccaga aatctcacgg ttccgaggag tgggtttttg ggggttaggg ttttcgagag 120  
atgttgaatg tcaggttcat tgatgaatct gttttctctc tgcttcaagc cattcgggca 180  
cgtctgtgat aattccgaag ctggatcggg tgggtggtgt ggcgtttctg gtggaaccgg 240  
cggatgaaggc aaagacggat tgctttggtt ccgtgatctc ggtaaattatt gcggcggaga 300  
tttctccatg gctgtgattc aagccaatca ggttcttgaa gatcagagcc aaggtcgaat 360  
ccggttaattt tgggactttt gttggtgttt acgaagggtc tgggtggtcc tgaaactgct 420  
cnttaagtcn ggtgatnaat ccccttaanc aatttcnaag cttagggtta agcaa 475

<210> 3649

<211> 489

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-082-Q1-E2-C2

<400> 3649

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actcttgtca ggatttttga ttctctcntt ggntttctcg gaaaaatgtc tgcgatactc 120  
caaggagctg gagctgcaac ggctctctcg ccgtttaatt ctatcgattc caacaaactc 180  
gttgctcctt ctncctcttc tctttcagtg aggagcaaga gatacattgt tgccggatct 240  
gatagtaaaa gctttgggtc tagcctcgta nctcgctcgct ctgaaccgtt gataccaaat 300  
gctgttacna cgaaatgcgg aactgctgc cagctctact tcaatcaaag cctgggacat 360  
tgagctatca acttttcgan ggctcttcaa gaangtcta nnaagaaaga agatggacaa 420  
gagattcaca atgttatgtt gtcaaggggtg aaanatgtna gggcaattac gganggtca 480  
atacaaagt 489

<210> 3650

<211> 527

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-082-Q1-E2-C4

<400> 3650

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atctcctctg ttttaagcaa gcacttttct aaaatcccac aggagaagag agatcggaag 120  
agatgacgaa gctggcggaa aaatcgggaa gcagaccacc gtgggtggga ttagcggcag 180  
ccgcatgggt tcaggtctcg gcggaagtgt gttcgacgtt cccgctttac tctcogctc 240  
tcaaatcggt tttgggtttt agccagcagc aggtcacgat ccttggcggt gcttgtgatt 300  
tggggtgaaaa catgggtctt ctctctggat acgccagtaa caagcttctt ccatgggtga 360  
tgcttctcat cggagcttcc tcntgtttcc tcggcttcgg gcgttctctg ggtctccgtc 420  
aagccaaatc ctctcttggg ctgtcccttt tggtgcttt ttggttaact caaccttanc 480  
tancaaatag caactccgtg ggttccggtg caancatctc cttgtca 527

<210> 3651  
 <211> 473  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E2-C6

<400> 3651

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 tggcatccca tctccttggc tccagggttaa ggcaatgagg gctcttcaat attttccaac 180  
 cattgaagat cccagtacca gaaaagctct ctttgagggtc cttcagcgaa tattgatggg 240  
 cacagatggt gtgaaaaatg tgaataaaaa caatgcgtct catgccgtgc tgtttgaagc 300  
 tctctccctg gtcatngcan cttgatgctg agaaggaaat gatgtcacag tgtgtttgct 360  
 cttcttggca aagttaattt ctgtccgtta gcccaacatc agatatctag ggcttggaaa 420  
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<210> 3652  
 <211> 452  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E2-C7

<400> 3652

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 ggtattgtcg agactagaca gtgataaaga taaggaagtg tttggtttgg tctgcaagag 180  
 gtggctaaat ctgcagagta ccgaccggaa gaagctagcg gcacgtgctg gtccacatat 240  
 gctccgcgt ctcgcttcta ggttcactca aatcgctgaa ttggatttgt ctcagtcaat 300  
 ttctaaggct cttttatcca ggagttactg attctgacct cgctgtnatc tctgagggat 360  
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 ggctcaatt ggaaggtgtc cttccttaac tg 452



<210> 3653  
 <211> 516  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E2-C8

<400> 3653

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catcatctcc acatctttaa cggtaaagat taatcatgcc tgaaattcat ttgggtgctc 180
atacaataag atcccatgga gtaacagtcg cgaggttcca catgcatgac tggctcattc 240
ttctgctgct aatagtcatt gaaattgttc ttaatgtcat cgaacccttt catcgttttg 300
ttggagaaga tatgctcact gatctcagat accctctgca ggacaacaca attcctttct 360
gggctgtccc gttgatangc tgttgtgcta ccttttgctg tcatttgtgt ttactacttc 420
attagaaatg atgtttatga cctgcatcat gcaataactag ggcttttggt ctctgtactt 480
ataaccggtg tcataaccga tgctataaag gacgct 516
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<210> 3654  
 <211> 465  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E2-C9

<400> 3654

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atgggcaagt cttagatctg gatactgcag tgaaannnnn nnnnnnnnnn nnnnnnnnnn 180
nnnnnnnnnn nnnnnnnnnn nnnnagaaat tggatctgaa gaagatgata aaggagctag 240
atttacaaga tataccttct gttttcattt gtcctatctc cttagagccg atgcaagatc 300
ctgtgacttt gtgtactggt caaacctatg aaagggttaa cattcacaaa tggtttaacc 360
taggtcactt gacttgcct actacaatgc aagagctttg ggaagatacg gtaactccct 420
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465

<210> 3655

<211> 499

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-082-Q1-E2-D11

<400> 3655

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gacggtgctc ctgccttaaa acaaagancc atcgggtctcg ctaacaccca cttgtcgatt 180  
ccctcgcagc tcactcccat gtaccagctt cctcataaga tagctctttg tttgccttcc 240  
accgaacgaa gtcagtctca taatgggtgac ctttggatcg gtaaagggga atattattat 300  
ctgccttacg ataaagatgt ctctaagatc tttgcctcca cgcctctgat cggtaatggc 360  
aagtcgggag agtacttaat cgatgtgaag tccatccaaa tcgggtgcaa gaccgttcct 420  
ataccctatg gagccacaaa gatcagcact ttggtccctt tacaccgtat tccaaacttt 480  
cccttttaca agggctctg 499

<210> 3656

<211> 529

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-082-Q1-E2-D2

<400> 3656

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gccaccgtca ccctgagta caangaacta tcagaatggg gctgctaata ccccaaagg 180  
tcgtcaatca agaccttcac cagtagctnt gaagaagacg ccagttccan gaagcgaaca 240  
aatctttaca ctctttatcg tctgatggaa tctctattga cctcaacggg cagaatgatt 300  
cttttaacca taagcangag aagccatcgc gaactgttcc tetatcccca anacagcatg 360

gctgatcntg ggaaaccctt atnancaacg ancctccaag gggcattgaa cacanntggc 420  
aagaattnac acagccaagt gagattaagt ttgtttaatg ttgttaagcc cctccannnn 480  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnch 529

<210> 3657  
<211> 538  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-082-Q1-E2-D3  
<400> 3657

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acattaggaa ctgtgtatac cgaaagaagt cggtcgcgg atcttctaac tatatggaga 120  
aacaatata gtttacagga atacttagca ataaagctca agaaaatcca gactttttca 180  
actggaatcg agttaagctt cgttactgcg atggtgggtc cttcagtgga gatagtcaga 240  
acaaggctgc acggcttcag tttagaggag agaagatatg gagagccgca atggacgatt 300  
tgaaggcaaa gggaatgca aatgcgaaac aggcacttct atctggttgc tctgcagggtg 360  
gtctagcagt tattttacgc tgttacgaaa ttcagaaacc ttgttttcct gggatgggac 420  
caagagttaa atgccttaaa gttgatgcaa ggcttggtcc ttgggacacg ccctgatggt 480  
atccccgggtg ggacacacta taaaggaant ttatataacc ggcgnttggtg caagttgc 538

<210> 3658  
<211> 510  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-082-Q1-E2-D4  
<400> 3658

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aaaccgctcg taagtccacc ggaggtaaag ctccaaggaa gcaacttgnt actaaggctg 180  
ctcgtanac tgcaccaact actggtggag tnaaganacc acatcnttac cgtcctggaa 240

ctgttgctct ccgtgaaatc cgtaagtacc agaatagtag tgagttgctt accatgaaac 300  
 tgccatttca gangctantc cgtgagattg ctcaanattt caagactgat ttgcgtttcc 360  
 atagccatgc tgtcttanct ctccangaag ctgcagaagc atatcttggt ggtcncattg 420  
 aagacantaa actttgtgcc aatcatgcca agcgtntnac caattaatgc ccaaagnnca 480  
 tcaagctcgc tccgtcgtat cagatgggtga 510

<210> 3659  
 <211> 518  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E2-D6  
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 tcaccggacg tttcaaatcc atcctccgat aactatattc gtttcgtag atctagatct 180  
 gagcgtcggg gagagatttt ctggatctgt gatacgttcc aggaaacatg gcgacgatga 240  
 aaagtttgat aggtctgata aacaaaatcc agagggcggtg tactgtcctc ggagatcatg 300  
 gcgggtgaagg aatgtcgtt tgggaagctc tccaaccgt cgctgtcgtt ggtggccaga 360  
 gttccggaaa atcttcagtt ctagaaagtg ttgtgggaag agattttctg cctcgtggat 420  
 ctggtatcgt tacaaggagg ccattgggtg tgcaacntca taagactgan gacgggacaa 480  
 ctgagtacgc tgagtttcct catgctccta anaagaga 518

<210> 3660  
 <211> 467  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 <400> 3660

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
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 acgcnttgat agccgtagta actggttgtg catgtatata ctcatgtttc atccgtggaa 300  
 anatgagagc tcactattaa tatnagaang agatgattgt actgattgcc ttanacattt 360  
 ctgctgttga gctttgttct ttgacccaac antaccgtga nctcaagcac cgcgggttacg 420  
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<210> 3661  
 <211> 505  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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 tctggggatc ccaaatacct tagcatcctt caagttcttg tttactcca nggattggtg 180  
 ttgaattcaa agccttattt caatgaagcc gggtatgata agcangtcgg aactgcggaa 240  
 ggagaaaaaa aactcactgg gatacaacga gaatactttc ttgctaaatt gtaaaaccat 300  
 gatgtatctt atgcggaaac caccanaggg attttgaaga actcatcaaa gatcatttca 360  
 agaaaacgcg ggatattaca ttttgaangc atgtgacgcc tacatganag gatattctcat 420  
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<210> 3662  
 <211> 477  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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aagttgcaga atttggctgg acaacactct gatgtccttg aaaacttgac tccaccagtc 180  
aggaagcgtg tcgagtttct aagagagatt cagaaccaat atgatgagat ggaagcaaaa 240  
ttctttgagg agagagcagc tcttgaagct aagtatcaaa agttatatca gcctttatat 300  
accaagcgat atgagattgt gaatgggtgtg gtcgaagttg aaggtgcagc tgaagaagta 360  
aaatccgaac aaggagaaag ataaatcagc tgaagagaaa ggagtancaa atttcctggc 420  
ttaatgcatt gaaagaacaa tgaaantaac tgcgggaaga aataactgag cgagatt 477

<210> 3663  
<211> 528  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-082-Q1-E2-A2  
<400> 3663

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aactactctt tccaaaagca attttaaagt gtgtcatitt gcggtagaag gttcgccttc 120  
ttgattatct ttctctttgc agcacaatat gagcgtgtct acgctggtag ctttcacaag 180  
gacgttcaga tacattgggg tgatggccgt ggaaaaattc tcgacaatgt cggaaatctt 240  
ctttctctct cgctcgacaa attctctggg tccggttttc agtcccatca agagtttctt 300  
tatggcaaag tagaggttca aatgaaactt gtacctgggt aactctgctg gaacaagtga 360  
caacattcta tctaaaatct ccttggaac tacatgggna tgaaataaaa ttttgagttc 420  
ctggggaaaa cataagtggg tcatccatat accntcata ctaaagtgtt acacaaaaan 480  
ggcacaagga gaacaaagga acaacaagtt tcatctatgg gtttgacc 528

<210> 3664  
<211> 512  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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cgggtcttttg ggacatcagt atgtgtctgg ttctcccttg ctttgatcct cgtcgggtcc 180  
gtccgtgtat taaacgggtt ttggagaatt ctcttgtcct ctcaacatca ctgccgttgg 240  
cgtactaaaa gacgtccaga atgacatcct gagatgagtc tattccagtg gaatcgctct 300  
tactaacgtc ccctaagggtt ctatggacat tttggnctnt atttatagat ttaccctga 360  
ggatccacct ccagctaata taatgggtcat aacccgattc ggaacctggg tctttttgac 420  
ntcctacana tgatgggata caaccttctg cagcccgttt ccatataaat cctttcaaaa 480  
acttctcct ggcaagattc aangggcact tg 512

<210> 3665  
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<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
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tagtgaagga cgaaccgaac taattgataa ggtgggagct gggatatcttg atcatttgat 120  
tgtggaaaga aaatatgctg aagcggcatc tttatgcccc aaattgttac gaggatctgc 180  
ttcagcctgg gagaggtggg ttttccattt tgctcaacta cgccagctgc ctgttcttgt 240  
cccatatatg cctacggata acccaaggct taaggatact gtgtatgagg ttgctctagt 300  
tgcactaagc aaccaatccc tcataccaca aggagctttt gtcagcggtt aaatcttggc 360  
cacgttctgt atattctgct ttgactgtta tctcagcaat agancctcaa ctgaacacat 420  
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<210> 3666  
<211> 523  
<212> DNA  
<213> Arabidopsis thaliana  
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[illegible]

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<212>      DNA
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<223>      unsure at all n locations
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<210>      3668
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<212>      DNA
<213>      Arabidopsis thaliana
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<223> unsure at all n locations  
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<400> 3668

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnaca caacaacaac aacanaataa  180
tcttgcaaag tttcagtctc aggtggttca cagttaatgc tacttgcaat gatgaatcca  240
tcccaatttc gataacctct actgaggcat ccaaagtgtg aacggaaaag aagagcctaa  300
gcagaagaaa ggttggtcag agtcgctgct agaatttcgg tcagggtttg gggaaaagat  360
gaaagttgtg tcgaagaaac gttggaaatc tcttggtcnt cttcatcctg aaaagcanat  420
cagttgcacg gttttgcctt cttttcgaag ttgaagtcan acaaccatgg tccaangccg  480
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<210> 3669  
<211> 514  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-082-Q1-E2-B10

<400> 3669

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tgcccttacg agaagagtga aaactgttcc tcggcgccga tatttgtag gcaatccaac  180
ttcaagcttc cttctgattc taaggtaccg atcatcatga tcggtccagg gactggatta  240
gctccattca gaggattcct tcaggaaaga ctacggttgg tagaatctgg tgttgaactt  300
gggccatcag ttttgttctt tggatgcaga aacogtngaa tggatttcat ctacgangaa  360
gagctccagc cgattttggt tgagaagtgg tgctctccgc anagctaagt tgctgccttc  420
tctcgtgaaa ggaccaccca aaagaatacg ttacaagcac aagatgatgg gacaaaggct  480
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<210> 3670  
 <211> 520  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 cagggtgatt cagcaagtgg gttccatgaa aattggggga ggtggcttga tatcagaggc 180  
 catgaagaga gccgaggcta tggagattga gaccaacgac gattcggaga aatttggggg 240  
 tggattggaa ttgggaaagg ttaagggtta gaagatgatg ttcgaatctc aaggaggggt 300  
 ttttgggatc agtggaaatgg gcggtgttgg taaaaccact cttgccaaag aacttcaacg 360  
 ggaccatgaa gtccaatgtc actttgagaa ccggattttg tttctgactg tatcacaatc 420  
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 ctggaaatcc cngttcctga ctgtaatttt ccggttgatg 520

<210> 3671  
 <211> 513  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E2-B9

<400> 3671  
  
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 caagatcaat ctcccaattc tcgtctacca accaaaatca ttctaccaa taagaaacct 180  
 gagaaatggt ccaccggagt tgctcccgga gagtacggtg gtccctccgac taccaccaag 240  
 ctccgaaagt actggggagg tgaaaaagaa gatcccatc cttccacaga cttaatctgg 300  
 aacagagatt ttatggatca aatgaagaaa ttgtttgatg atcctaata ttcttctctc 360  
 gaccatctc cttcaaagga aaagtcttct gggtttctga gcttttagcag agttatgagt 420  
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513

<210> 3672  
<211> 428  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 3672

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tccatttttg tattcgtcac cggagtagat ggatacgaga gaaatcaacg gttttgcctc 180  
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ggcgttgaaa catttggcat ctataaacct cagagaatta tgtaatgagg caaaagttga 300  
gcgatgtcgt gcaacaagag acttagctag ctgtggnaga tttgtgaact atgtgttgaa 360  
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naactgta 428

<210> 3673  
<211> 453  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-082-Q1-E1-D9  
  
<400> 3673

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cgattttctgg cggaagtaag gatatacgt gagctatgaa gttcctcatg caatccattt 180  
ctgggaggaa tcgatactctg gttcgagctc tagttagtcg gcgttacttc gttcatcgc 240  
cggaggaaat cgcaaagaga aattacgcca acgatctgtc ggaatacaac accgctgtca 300  
actccgtcac agctcagcgc aggcactatt tgctgaggga tgtttatgat gatatgaagc 360  
ttgatgggtg gcaagcctac agctgatatc ttccattcat ttgtcgtggg aacgatgaag 420

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453

<210> 3674  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 3674

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agagcgtacc angacantt g gatggcgctc atgtcgagtt tctcaggggg attgctaate 180  
ctctgggcat taagggtgagc aacaaaatgg atccctttga gctgggttaag ctagtagaaa 240  
tctgaatcc taataacaag cctgggaaga atcactgtaa ttgtgagaat ggggtgccgan 300  
aacatgagag ttaagcttcc ccacctgatc aagangcagt ccgcagatca ggccagattg 360  
tgacatgggt ctgcgatcca atgcatggaa acaccatcaa agcaccttgc g 411

<210> 3675  
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<212> DNA  
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<223> unsure at all n locations  
<223> Clone ID: LIB22-082-Q1-E1-E8  
  
<400> 3675

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agcgtaccag acaattggat ggcgctcatg tcgagtttct caggggggatt gctaatectc 180  
tgggcattaa ngtgagcaac aaaatggatc cctttgagct ggttaagcta gtagaaatcc 240  
tgaatectaa taacaagcct ggaagaatca ctgtaattgt gagaatgggt gccgagaaca 300  
tgagagttaa gcttccccac ctgatcagag cagtccgcag atcaggccag attgtgacat 360  
ngggctctgc atccaatgcc atngaaacac catc 394

<210> 3676  
 <211> 455  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E1-E9

<400> 3676

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attdgtataa gatatgcatt aatctccgag gctatgtata gttcagaatt tgaagtgaag 180
tttaggagag gaagagagat ggaggtattd agacttgng agctgagaca cctactggtg 240
acggtdtttct tgcggggct cgccgaatac ttgataaggc cagtgatgac tgacgtcacc 300
gtagccgcgg tttgctccg cctagacgat tcatgttctt tggccgtcta tctcaccgga 360
gtacaacaag tgacggtagg aatgggggac aatggtaatt gatgccagtg atcggcaatc 420
tatcgggaca gatattggaa tcaanagcat gctcc 455
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<210> 3677  
 <211> 453  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E1-F12

<400> 3677

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taaaatactg tgtdttttgt ttcttccatc gaaatcgaaa aaagctaaga tcnttgcgtt 120
ttgaaacgat ggcggaacga acataagcat gatgaatctg tgatcgctcc tgagccagct 180
gttgaggttg tggagagaga atcgttgatg ganaagatat cggagaagat ccatcacggt 240
ggtgattctt ctctgtcttc ttcattctt nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300
nnccctctt ctcttctgct ttctatgaaa tcgaaagttt accgcttggt cggacgagag 360
cagctgttc ataaggttct cggcgggtga aagccgggct ggatatantc atgtggaang 420
aacaagaaga ttctgggggt gnactttggt ggg 453
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<210> 3678  
 <211> 433  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E1-F2  
  
 <400> 3678  
  
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 tagcactctt tttccctcc taatatccct cactccacac tttttncta tatcttctcc 120  
 tcaacttgga tatggggtga agccgtagag gtcattgtcg ggaaatgggt tcccggagat 180  
 tcacaaagcc acatcaccca ctcaaaccct cactctaac cagcangact gccattggta 240  
 tgaagaaacc atcgatgatg atctcaagtg gtcttttgcc ctcaacagtg ttctccatca 300  
 aggaactagt gagtaccaag atattgctct gttggacacc aaacgttttg gaaagggtgct 360  
 tgtgattgat gggaaaatgc aaagtgctga gagagatgag tttatctacc atgaatgttt 420  
 gatccanccc gct 433

<210> 3679  
 <211> 434  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 3679  
  
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 ctcttcagat tctacactc caacaaatat aagtttcatt agattctttc ttagctagag 120  
 aatgaaactg attgagaaga cgatgagcat gaaccagttt aggactatgg aggaggagaa 180  
 gcaagacggt ggtgagcttt tccataccat cgaggtagct aaagttgacc ggaacaacgt 240  
 gtctcagccg ccgccggctg ctactgcagc actgctagaa gttcccggtg atgaacttaa 300  
 cctaattcca ccgttgaact tttcgatggg cnataatggg atattccggt ctggattccn 360  
 ggactcggcg aacttcncct tcagcaagac tcttggcctt cgctcaanca tatcgttggtg 420  
 tccagagcca tanc 434

<210> 3680  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E1-F8

<400> 3680  
  
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 tgggtggagcc gagcctcagg ttttgacctc agaggatcac ttttctctct tcaagcggaa 180  
 gttcggaag gtctacgct ccaacgagga gcatgaacat agattctcgg ttttcanagc 240  
 gaatctcagg cgancgaggc gtcacnagaa gttggatccg tcggcgactc agngnggtta 300  
 cgcagttctc agatntgacn cggctctgant tccgtaagga agcacttggg nggttacaan 360  
 tgggctttaa gcttccnant tgatgccagc agggntccca ttctccc 407

<210> 3681  
 <211> 441  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E1-F9

<400> 3681  
  
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 aaaaccctaa aaaagagagc ctcaaaatct ttgagtgttt tgcgtcgtcg gttttaaaaca 180  
 aaaaggttca ataacttttt ctctcctttg tttctttttt gtttattatc tctctcatc 240  
 ccattttccc aacacgacgt cgttacagat tctccgatg gacttcccg acgatcacc 300  
 ttaaccacct taaaaacga cgacggagga agaaaaggaa ccggtacagc cggagcgggt 360  
 aggggttaaac cgtgggttcac ttggagatca agatccgaat cggacttcaa atcgttttcc 420  
 ggttaaccaa gaagagtcc t 441

<210> 3682  
 <211> 383

<212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E1-G2  
  
 <400> 3682  
  
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 gatgatcaac caccgtcaac canactttctc ctccgccgtc tccagaccca cttctttccg 180  
 gatctccgcc gtgcaaaccg acccaaaaaac accaggctgc ttcatacggcg tcggcggcga 240  
 cgacnactcc ggnaacgttg acgaagcccg ttggagttaa ngtgggtaaa ggaaaatggg 300  
 caccagagag ttggaggacg aaganagctt tacagnancc cgggctatcc agatttagct 360  
 gcgcttgaag gctgtgccag acn 383

<210> 3683  
 <211> 367  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-082-Q1-E1-G8  
  
 <400> 3683

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 gaacaagttg gaagcttttg ctagttttgt caaagggtgc actaaagtac taactatcag 180  
 aaaacatttt cagccagaag cttggtgatg tatcttcaga ttttcaacaa cccatctcat 240  
 ggcttagctc atttatgcta ctctagtcgg ggtttcgtgt agggtaagac tgagtcgtgt 300  
 ccttgccatg ccaccgtctt cagtcctcct tgcatatgga cgaaagcaat gatcttccca 360  
 agccang 367

<210> 3684  
 <211> 460  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations



<223> Clone ID: LIB22-082-Q1-E1-G9

<400> 3684

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gaggcttgaa attttatgggt ttccatggag ctattcctga agagaagacg cttggccaga 180  
tgtttatgct tgacatcgat gcttggatgt gtctcaaaaa ggctggtcta tcagacaact 240  
tagctgattc tgtcagctat gtcgacattt acaagttagt ttttaattact aatatgagag 300  
gatttgctag agatagttaa ctaaattctc ccctttactc ttgaccaatc catttttatt 360  
gtgacctcat caaaaaatga caagctttgc ttatataaca atttgtcanc actatctgtg 420  
tcactgagtg atgcattgat tataggatat gaaaatgatt 460

<210> 3685

<211> 454

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-082-Q1-E1-H10

<400> 3685

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cattgagatt tggaagatta agangctaata caaaggactt gaaaccgcaa gaggtaatgg 180  
aacaagtatg atctctctta taatgcctcc tagagatcaa gtagctcgtg tctaactaat 240  
gcttgctgat gaatacggna ccgcctcaaa catcaagagt cnagtgaatc ntcaatctgt 300  
tttatctgcc attacttctg ctcaacanag attgaangct ttacaacaaa gttcctccga 360  
atggncctgt tctcnatact ggaaccattg ttactgatga nggnaangng aagaaagtga 420  
ccaattgatt tcgaaccctt ttaaaaccga ggan 454

<210> 3686

<211> 466

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-082-Q1-E1-H11

<400> 3686

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accctcgaag ccaagttgac agaactttct gaagcagatc agaaagcgtt ggggtctaatt 180  
gtgaaggctg caaaaattat ggacgatata ttctatgagc aggtttggaa cagcaatcca 240  
agccctaaga gattggctga aggatcatgc caatgcatca aaactggaca aactaaaatg 300  
ggattacttc acgatcaaca aaagtccatg gtcgtctctt gatgaaaatg aagcattctt 360  
gagtactgog gattcagctg taaagttgct tcttgagca acaaaagcca taanctggct 420  
ggaaagggtc cttgaatata gagcagcctt ccanttgact aaacca 466

<210> 3687

<211> 401

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-082-Q1-E1-D6

<400> 3687

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agcgctcgtg agagattttc tggatctgtg atacgttcca ggaaacatgg ngacnatgaa 180  
aagtttgata ggtctgataa acaaaatcca gagggcgtgt actgtcctcg gagatcatgg 240  
cggatgaagga atgtcgcttt gggaagctct cccaaccgtc gctgtcgttg gtggccagag 300  
ttccggaaaa tcttcagttc tagaaagtgt tgtggaaga gattttctgc ctcgtggatc 360  
tggtatcggtt acaagggang gcattgggtg ttgcaacttc n 401

<210> 3688

<211> 440

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E1-F5

<400> 3688

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acaaaaatct caacatcgag gtaagagttt tggctacaga gcaaccatgc taacttgccg 180  
cttctcccaa aatcttatcc actaatctcg gtaaggaaaag tgatgttggc aaaatgggtga 240  
agaaaggaag ttggttttct gctatcaaaa gggtttttac tccanattcc nnnnnnnnnn 300  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnttttggtga 360  
agctaaggca tngcgagac caattcattt ctcccatct tcagangagc ctantagtat 420  
cganaagatc ttggggcgaa 440

<210> 3689

<211> 432

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E1-F6

<400> 3689

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acggtacacc attatgatat tgctcttgaa gttacagtaa tcaaccganc caaggaaacc 180  
cttcagaact tgtgcttgga gttagcaanc atgggtgac ncanacttgt tgagcgtcct 240  
caggaactac agtctggcac ctggaaagaa gcatgcagat tnaagcnaa atnnaggtgt 300  
cgtccacaag angacnggga gtcattatcg gggaanaten gtcnatgaga catcaaagt 360  
aatggngcga aaacntcgtt gntcttantg aacatncaca ttntatcat tggactatat 420  
ctccentgct gt 432

<210> 3690

<211> 427

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E1-F8

<400> 3690

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tccttctctca tctcacaat gttatgcaac acacaacaag ctccaagcac gtacggcaga 180  
tctgaagct tcacctccgt cggtttctgc aaacaagccc accgtccttt gagcctctca 240  
aacgcagccg tgcgaatccc ctgaatctct cggatactct cgttaaacgc gtgctgcgtc 300  
cacgtcagat tctgtctcgt gtacggtaga agaagataat caagtcaacg gaaaccaga 360  
gtttccaact atccagctgt cacgtaacat cccanngcgc cgctctttgc cgtgnaaagc 420  
gaagatt 427

<210> 3691

<211> 491

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E1-G1

<400> 3691

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cgggtgaaac ttgttaccct tgttcaaccg ctctcacgc taaagctccc tctctctctg 120  
agattattgc tctgttctt cttggaattt atgatggtgg tcaaaagaat gttgtcaaga 180  
aacgtgtgtc ttttgtgaa cgggtagaag aagtcaaacc aatagaaacc attaaagagc 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnca 360  
gttcaangct atggaaatga ggaatatgaa gtcgtagcat aaaaggagaa gtgaaagctt 420  
tgtaagttcc gtctggttac ggattagaan gcgaccgatn tncgtggaag gttnatattt 480  
tgaggagggtt a 491

<210> 3692

<211> 423

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E1-H3

<400> 3692

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gtggaatggg ccattgcgcg agatgataaa caaacggag atcctccaca aagctatggn 120  
agagatcgat aggagtcgtc ggnaaagaaa gattcgtcca agaatccgat ataccaaaac 180  
ttaactatgt taaagctatt atccgagaag ctttccgtct tcatccccgt cgcccgccctt 240  
caacctccca cacgtggcac tctctganac gaccgtcgca agttancata ttcctaaaag 300  
gaangtcaag ttttactan gccgttacgg tctttggnc gtaaaccaca acngtttggg 360  
tctgatccac tntagccttc aanccaagna aagggcatct caatggagtg tttcggnag 420  
tga 423

<210> 3693

<211> 468

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E1-H4

<400> 3693

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gnggagtcca agaagaggtc tatcaccaca atgcacttan ggcggcgctc gctgagtta 180  
tctcgacttt gatcttcgtc ttcgccggct caggctccgg aattgctttc aacaagatca 240  
ctgacaatgg ancaacnact cttccggcc tcgtcgncgc tgccttagct catgctttcg 300  
gtctcttttc gctgtcgct gtttggcgt aacatttccg gtggccangt taccctgctc 360  
gttaacttcg gtgtcttaca cggnggtaan atcactctcc nccgtggnat tccctacngg 420  
attgctcanc tttcttgggg tcccgtcggc cggctgtgtt tcttncct 468

<210> 3694

<211> 423

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E2-A1

<400> 3694

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tcctgagtgt aactgtgggt aaaagcttag ccaagatgca gggggagagg gccagtcttg 180  
gctatttata agaggccttg aactttgagc atgggtcttc ttcaagtaat ggtgtgatag 240  
atcattggga gaatattcac agtcttggtg ataatgactt gcaggattac atgattgcaa 300  
attctgaatc aaatacttcg cttgcaaact cagtttatca cgagcaacaa ggtttacgca 360  
gatttagcct tgggtgangct agctctantg gcacgaaagg atgaaacctc caagtcacaa 420  
atg 423

<210> 3695

<211> 394

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-081-Q1-E2-A11

<400> 3695

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tttgcttcac cgaantaaga nagttgattt cattgaacaa ttcaatgaaa agcttctagt 120  
tgagcaagag ancgagaatc tacggatact tgacgttcga aangctgagc tgatagaagt 180  
tagcagaact gacttcatga caccatcaag cattcagnat ttttgatga gaatcagttg 240  
tttcnaagat tcaggaaccg anatgtntct gtgtggaatt tccgcggaga gcttgtgacc 300  
tcgtttgagg atcatcttcn ttggcntcca gactgtaaca cangnaanat ctacataaca 360  
agcgatcaag atctgatcat cncataatgc aaag 394

<210> 3696

<211> 417

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-081-Q1-E2-A6

<400> 3696

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taccatctcc gcaaaaccct tcagaaaatc agagagtata ccggaagca gcaactcgat 120  
gaggatatct ttgccgtcta taaggattcc ttcaatgatc ctcatgagac cgctcagaag 180  
ctcctcttct tagatacatt tcatgaggtg agaagtaaaa gggagaaaaa gaaggagcct 240  
atagtgccag ttacacaacc aagtggcaga ggtggtcgga ggaactttgc ttcaagtaac 300  
tcttatcaag gtagtggaag aaatgcttct tttaaaaggg aaaatggagc taatcatgta 360  
acaagagggt ctagaactgc tcagcctgcc actaacaag caaagcaaca tcacagt 417

<210> 3697  
<211> 400  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-081-Q1-E2-A9  
<400> 3697

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taaaagtgtt tgctctgcct tcaattcacc acagtactgt tgcaccggct tgttcggtaa 180  
cccacagtct tgcaaaccac eggcttactc caaaatcttc aaagtcgctt gcccaaaagc 240  
ttactcttat gcttacgacg acccaaccag tatcgccaca tgttccaagg ctaactacat 300  
cgtcaccttt tgccctcatc atcgccatta aattagccag taaagaagaa gaaacatttc 360  
tctattaaca acaaactcct gtcangtttc caaatcctg 400

<210> 3698  
<211> 444  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-081-Q1-E2-B3  
<400> 3698

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tcgcgtctat ggcggtcaaa tgtttctctc tttatctgat tctggcggcg attgtaatcg 120

gcggcgtcac ctccgagtac atagagtaca acacaaaacc gagaatcgtc cctgagaaaa 180  
tcaatgttca cttagttcct cactcacacg acgatgtagg ttggcttaag accgttgatc 240  
agtacnacgt aggctccaat aactccatta ggggaagctt gtgttcanaa tgtattggat 300  
tctgtaatcg cttcattgct tgatgatgaa aatagaaagt ttatttatgt tgaaatggct 360  
ttctttcaaa gatggtggag gcaacaaagc aatgctaaga aagttaaagt caagaanctt 420  
gttgactctg gtcaacgttg agtt 444

<210> 3699  
<211> 481  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-081-Q1-E2-B4  
<400> 3699

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ctgaatacgt ttgatgaacg tatcagttca tttgctgaac aaaagtccac gcgagatgg 120  
attgatgttc agactggaat gcgtgtaatg tctgtgactg ataaagatat cacagtga 180  
gtcaaataca gtggagaact cgtaagtatt cctcatggat tgatattgtg gtccactgga 240  
gttggaaccc gtccagttat cagcgacttc atggagcaag ttggccaang aggcagacgt 300  
gcggtggcaa ctaacgagtg gttacaagtg acaggatgtg agaatgtata tgcagttggc 360  
gattgtgctt ccatagctca acgaaaaatc ttgggggata ttgcaaaca attcaaagct 420  
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<210> 3700  
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<223> unsure at all n locations  
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 ttatgtaacc agccccgaat tgaattagtt ccaaagttag ggTTTTtctc tctcaaatta 180  
 gggTTTTgcc ccaattgtgt tcttatattg aatttaccat ttgcgcaggt tatgtggtgg 240  
 aggttgtttc caatttaaag tatgtacctt taggttagaa attaggetta tttgtttctc 300  
 cagtgggttt cattgtagaa acaaattgaa ttttaggtgt taatgtgaga ttaggaaaca 360  
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<210> 3701  
 <211> 380  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 3701

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 gcagatgcaa gaagcagcca ttcagaagtc aatgagcttt gaaaactcag tcatagggaa 180  
 atacagtata tggaggagag actatgagag cccaaatgct gatgctatct tgaagcttat 240  
 gagagaccag atcataatgg caaaagcata tgcnaatatt gccaaatcaa aaaatgtaac 300  
 caatctgtac gttttcttga tgcagcaagt gtgggagaaa ataaactgtt tataggtaaa 360  
 gcaacctcct gatgccgacc 380

<210> 3702  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 3702

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tttttgcttc tcacctgaat ccaatcaatc tcgccggagt gaattcacct tcctccggtt 180  
 gactcgtcgg acttagtccg acctttcaat tcgtagattc tgtttacaat tcaactgatcg 240  
 tttgattaga aatgggttac ttgttcttct aagtctctct ttagctgaaa gtttggtgct 300  
 ttacgactct tcgatttacc ottacttggt caagttcttc atcaaattcg taggttatgg 360  
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<210> 3703  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-H2

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 nnnnnnnnnn nnnnnnnnnn nnnnnntcat cgcagcttct cctccgacca tttgactgcg 180  
 actgtgatta caacacaccg ttgatcctac gaaaaagagg taatggatac tggcggcaat 240  
 tcgctggcgt cgggacctga tgggtgtgaag aggaaagttt gttatttcta tgaccctgag 300  
 gtcggcaatt actactatgg ccaaggtcat cccatgaagc cccatcgcat ccgcatgacc 360  
 catgccctcc tcgtcacta cggctctcct cagcatatgc angttctcaa agccctttcc 420  
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<210> 3704  
 <211> 458  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-H7

<400> 3704  
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 gaagtttaca gctgatgagc ttcgaaggat tatggactac aaacacaaca tccgtaatat 180

gtctgttatt gctcatgtcg accacgggaa atccactctt actgattctt tggttgctgc 240  
 tgctggatc attgccaag aggttgctgg tgatgttcgt atgactgata ccagagctga 300  
 tgaggetgaa cgtggatca ctatcaagtc cactgggtatt tctctctact acgagatgac 360  
 tgatgaatcc ttgaagagtt tcaactgggag ccagagacgg naaaccaata actcaacaaa 420  
 cctaataatc cacctgggca cgttgaactt tcctccng 458

<210> 3705  
 <211> 471  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-H8

<400> 3705  
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 tgttttgatc tgattcttcc aggattctcc cgggtggcgga gagaagaaac aaaggaaacc 180  
 cagaaagcat ttttctcaat ggcgtcgact acacgagaaa agtttgtatc tttcataaac 240  
 aacagatggc tcgtcttcgt ggctgccatg tggatacagt cttgtgctgg catcggttat 300  
 ttgttcggaa gcatttctcc gggtatcaaa agctccttaa actataatca agaaggagct 360  
 ttccagactt ggagtcgcca aggatctcgg tgatagtgtc ggattcatcg ccggtactct 420  
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<210> 3706  
 <211> 435  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-H9

<400> 3706  
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 atggctctct ttactctctc cgttgatgtg aagagctctt cagcgacctc tcatgatgtt 180

tcaagaggg taatgcagag ttcacagctc aaaataaaca aaggnttttt tgcattctgtt 240  
aatacacaag aagataaacc ctttgatttc ttccgcactc tctttgaggg gtttatagca 300  
ggaggtacag ctggagttgt agttgaaaca gctttatacc caattgatac tattaagact 360  
agacttcagg caggcagctc gtggaggtgg aaaaattgtt ttgaaggggc tttattcagg 420  
attanctggg aatat 435

<210> 3707  
<211> 453  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-081-Q1-E1-A1

<400> 3707

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tgagttctct tctcctgagt gtaactgtgg ttaaaagctt agccaagatg cagggggaga 180  
gggccagtct tggctattta tcagaggcct tgaactttga gcatggttct tcttcaagta 240  
atggtgtgat agatcattgg gagaatattc acagtcttgg tgataatgac ttgcaggatt 300  
acatgattgc aaattctgaa tcaaatactt cgcttgcaaa ctcagtttat cacgagcaac 360  
angggtttac gcaagattta gccttgggtga ggctaagctc ctaagtgggc acgaaaggat 420  
gaagcttcca antcnaaaat ggagcaaacg aat 453

<210> 3708  
<211> 489  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-081-Q1-E1-B3

<400> 3708

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ccgcttcac tcttctccc gtaaagctct cgcgtctatg gcggtcaaat gtttctctct 120  
ttatctgatt ctggcggcga ttgtaatcgg cggcgtcacc tccgagtaca tagagtacaa 180

cacaaaaccg agaatcgtcc ctgagaaaat caatgttcac ttagttcctc actcacacga 240  
 cgatgtaggt tggcttaaga ccgttgatca gtacnacgta ggctccaata actccattag 300  
 gggaacttgt gttcagaatg tattggattc tgtaaatoctc ttcattgctt gatgatgaaa 360  
 atanaaagtt tatttatgtt gaaatggctt tctttcaaag atgggtgggag gcaaacaaaa 420  
 cantgctaan gaaagttaaa gtcaagaagc ttggttgant ctgggtcaact tgagnttcat 480  
 aaaatggtg 489

<210> 3709  
 <211> 336  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-081-Q1-E1-B5  
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 ttttgcaact tcgatacgta aattacgtaa ttagggtttg ataatgtttt atgtaaccag 120  
 ccccgaaattg aattagttcc aaagttaggg tttttctctc tcaaattagg gttttgcccc 180  
 aattgtgttc ttatattgaa ttaccattt gcgcagggtta tgtggtggag gttgtttcca 240  
 atttaaagta tgtaccttta gggtangaaa ttaggcttat ttgtttctcc agtgggtttc 300  
 attgtagana caaattgaat tttagtggtt aatgtg 336

<210> 3710  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-081-Q1-E1-B6  
 <400> 3710

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 ttctttgagc tttccctttg agctctcaca cgagcggtt cttttgtcat ctcacctttt 120  
 ccttcattct ttcttccttc aaattctggt ttttttcaca gatcgttttc tcagattttg 180  
 actctttttg gtgtgtgtgt tgttcttctc cttcgtgaag tggaagaaga anataacaaa 240

actgggtttt ttatatctgg aattctgaag aaattcttca cggatttgat ctgtttaaac 300  
 tanaaaagtc ttgattttta gaaatnagct aaaaataaga cacggtttan gggtttangg 360  
 tttgactaga aacaacanta ctgaaanggg gtgtgaggtt tcaaagttan ggt 413

<210> 3711  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-081-Q1-E1-C5  
 <400> 3711

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 gggttangaac caaagctcca ccaactcacia gtcaccaatc ttgttgctta aagagacaac 120  
 atgggggaaca agaaatctgc anacagataa ggcgtgaaag attctgacga gttaaaacgt 180  
 gtgaagtggg tttttgggta cgtatcctct gcaccagctt tttagctgta natantggac 240  
 tacttttaag tattatatat gctactgcaa atttcaaaaa gttaangaat gaaaagaggt 300  
 cactttcttc ttctctctgt gtggaatgna aagccaanag tcntcaaggg ncantgatgg 360  
 acaatganta tcgttttttg ctgaagtgtt ggntgggtgaa atcacaagcg c 411

<210> 3712  
 <211> 396  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-081-Q1-E1-C6  
 <400> 3712

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 gccaaagtatg cgcaatgctg ctcaagtggg tcacgatata ttgccaaagg cttctgtttc 120  
 agcttctatg aagacgcaca naccaaacca ggccaattcc ttctcaacca ttcgctagtt 180  
 cttcaccttc ttttcactct caagctgatc ccaactcacc gtttgcttca tcgacagcta 240  
 aacgaggacc tgttcctatt gtcaagggca aaaaaacaca aaccaagttt ttcctggctc 300  
 gtcttccaca aaacatgccc cataccatcc ttcagatnaa cctccacgag gacaaagtca 360

tgaacagatt accatctggt cctgccaagt tnaaag

396

<210> 3713  
<211> 443  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-081-Q1-E1-D3  
  
<400> 3713

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tgaaaatttc aaaatccgaa gaattctcta aagctagggt ttcttaattc acgagacgga 180  
ggatgatataa tcccccccg tctagctat gatgatttcg agaggtttgt ttggttggtc 240  
tccgcgcgat atacaaccgt taactcctgt ttctgaaagt ttccgagcct cctgagtctc 300  
catctcctta ccttgatcc tgggtctgac cacngtggtta caggaacagc ggcgcaaagc 360  
ngatgatgaa ggaggaaaat ggaggagcc ggaggagatg gagcctcctc ctgctgctgt 420  
tcctttctcn caagcctatt tgc 443

<210> 3714  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-081-Q1-E1-D8  
  
<400> 3714

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cctaagaatc ttccacatag acagcccttg ctcccccttc aaatcatcat cccactctc 180  
atgggaagcg cgtgtgctcc agacgtggc tcaagaccag gccgtctcc agtacctgag 240  
cagcctcgtc gccgggagat ctgtagtccc cantgcctca gggcggtcaa atgttgcaaa 300  
gcactacnta cattgtcaag gctttgatcg gtactccggc tcagccgtg ctctagcca 360  
tggacacgan cagtgaentg gcttggattc cttgctcngg ctgcgttggc tgtcccttct 420

aacagg

426

<210> 3715  
<211> 435  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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<400> 3715

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gaactgcttc agctaaggan aaagacaaaac tgtctctggc ttaanggaag ggttccataa 120  
cgggaggaggaa aatattgtcc atgaaaatac tagcaacact gataatgata atagcaatac 180  
ttccacaaat gctcttgcaa ttgcaatcac tgctgggaat tctcagcgtg taaccnatga 240  
gagttcaact tcttccanac aagggaatga tantcccatt ttgcctgata actcagaaag 300  
cagcctanca aatgcggnta gagactggga acgaggatac cantcaaana aangatctgg 360  
cangaaaatg gtcccagtag atgaganggc caaatttggg gcaagngaac tctaaacgca 420  
atttgantgg gtttg 435

<210> 3716  
<211> 458  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-080-Q1-E2-H1  
  
<400> 3716

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tgagggaatc caaaacacct cacgttgcca tcataccaag tccgggaatg ggtcatctca 180  
taccactcgt cgagtttgct aaacgactcg tccatcttca cggcctcacc gttaccttcg 240  
tcategcggg cgaagggtcca ccatcaaaaag ctcagagaaac cgtcctcgac tctctccctt 300  
cttcaatctc ctccgtcttt ctccctcttg ttgatctcac cgatntcnct tcgtccactc 360  
gcatccaaat ctcggatntc cctcaccgtg aatcngtnaa aaccggggag ctccgggaaan 420



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458

<210> 3717  
<211> 458  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-080-Q1-E2-E11

<400> 3717

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tcttttatatt ttgaaaaaga taacaaacat cgaaatccat catccactgg catagagatt 180  
tgtgaagcag aagcagaagc tgctgcttca gctattgctg tggcagccat aactaatgat 240  
gaaaccagtg ggaatgcctt gagtactggc tctgtattac ctgttgaaac caaaatttat 300  
ggaggaacag agttagatga tggggcagca agtgggtactg ttgggtgggca gactagtcga 360  
tcaaaagctg aggaatctct cattgtttct ctaccagcag atctttcagt ggacacccca 420  
atctctctgt ggccacaatt accaagtcca canaatca 458

<210> 3718  
<211> 407  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-080-Q1-E2-E4

<400> 3718

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tggtgaagt tgaccaaatt tataaactga tccaatttta aaatctaaga gatattgaga 180  
acatggacga tttctcaccg gagaatgttt tagcaccacc accaccacct cctccaatga 240  
agaagtcaac ggatctgttt atgcaaagaa gcaatagctt tgtttctaaa gctacgagag 300  
attcatggga tcgtatgttc gacgaagctc atggagctga tgttttgatt catactgatg 360  
ataatgggtt gattacgccc aatccnaagt ccancggaat gggcttc 407

<210> 3719  
 <211> 371  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-E7

<400> 3719

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 attcattcga cgatgcatct tcagatttaa tggaagctcc agcatatcaa aacgggtctg 180  
 attgctctgt tttagccaaa aacagactct tgttagcttg tgatccatca gctgttcata 240  
 tagctatgac tctagatcca gcttacttgc gtggcacggg atctgcagta cattccatcc 300  
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 cangggttcc c 371

<210> 3720  
 <211> 405  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-E9

<400> 3720

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 tctactgtac cgctgggtatc tccgggtggac acatcaaccc agcgggttact tttgggtctgt 180  
 tcttagcccg gaagctgtcg cttactagag ctctgtacta catagtgatg cagtgttgg 240  
 gagctatctg tgggtgctgga gtgggttaaag ggtccaagc ctaagcaata ccaggctcta 300  
 ggaggaggag ctaacactgt ggctcatggg tacaccaagg gaagtgggtct tggagctgag 360  
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<210> 3721  
 <211> 405

<212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-F1

<400> 3721

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 tggattctgg gatttgttca gaagctctct ttagtcttgc ttctcgtttc aaatcattgc 180  
 agatgatgtg taaaacacat tttgaagagg aagagaaaga tttattgcc aatggtggaag 240  
 ctgcagaaat ggggaaagag aagcagaaga aattgatgaa tcaaagctta naagttatga 300  
 gtgggactca ttctaactcg tttgatttcc tactagaaag ncccantcca caagaagcta 360  
 tgcctaanat nnnctngccc angacattgg gggatccaaa anctt 405

<210> 3722  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-F10

<400> 3722

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 tgagagttag agcaacctca ggaaagcatt tgaggaggct gagaagaatg ccccgcttat 180  
 catattcatt gatgagattg actctattgc accaaaaaga gagaagacga atggtgaggt 240  
 tgagaggagg attgtctctc agctccttac gcttatggat ggactaaaat cacgtgcccc 300  
 tgttattggt atgggagcaa caaatcgtcc caacagtatt gatccggctt tgagaangtt 360  
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<210> 3723  
 <211> 404  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations

<223> Clone ID: LIB22-080-Q1-E2-F12

<400> 3723

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atatagacaa agaggattca tctgtcagaa tcggtgctat catgggtctt ggaatttcat 180  
acgcaggttc ccaaaatgac cagattcgaa acaaattgtc cccgatactg aatgatgcaa 240  
aagcgcctct tgatgtgatt gcatttgctt cactttcttt gggaatgata tatgttggtt 300  
cctgtaacga agaagtagcc cagtctatta tatttgcttt gatggatcga agtgaggcag 360  
aactgggtga tgccctcact cctttcctgg cactngggcc tggg 404

<210> 3724

<211> 456

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-080-Q1-E2-F5

<400> 3724

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tctccaatc aaaaggcgag tgggtggcacg ccgatttca tctaacgacg gcgattgttg 180  
gtccgacgat attgacatta ccatatgcgt ttagaggatt aggatggtgg ttagggtttg 240  
ttgttttaac gacgatggga ctcgttactt tctaagctta ttacctcatg tctaaggttc 300  
ttgatcactg tgaaaaatcc ggccgccgtc acatccgttt ccgggaactc gccgccgatg 360  
ttcttgatc tggattgatg ttttatgtag tgatctttaa tcaaacagct ttcaacacct 420  
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<210> 3725

<211> 460

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-080-Q1-E2-F6

<400> 3725

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caaattcttc tgttttaatc ttgggatggc ctcggtgggc atagagccta gtgccgcggt 180  
tagagaatct actggaaacg ttactgatgc tgatagatta cccgaggaga tgaaggacat 240  
gaaaattcaa gatgataaag aaatggaagc tacgattgtt aatggcaatg tgactgagac 300  
tggccatata atagtaacta ctataggagg aagaaatggc cagccaaaac agacaatcag 360  
ttacatggcg gagcgagttg ttggacatgg ctcttttggg gttgtgtttc anggcaaagt 420  
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<210> 3726

<211> 398

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-080-Q1-E2-F9

<400> 3726

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ggaggatgac cttatggacg aagaaggtac agctattgac ggagctgatg tttctccacg 180  
cgcggggacat ccgaggctta agtcggctat tgccggagct aatggcgaat cagcaaagaa 240  
gaccaaaggc cgtgggtttc gcgaggagaa agattccgat cgtcagcgtc gtctttcctc 300  
acgcgatttc gaatcacttg gttcagatgg ccgtcctggg ccgcagagat ccgttgaagg 360  
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<210> 3727

<211> 412

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-080-Q1-E2-G10

<400> 3727

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 ctggctcaag gccggggtgg tgtatgttgt tcagagagcg actacnattt cattcacagc 180  
 tgtgcgacgg atcaattgcg gcctttactg ttcttcacaa tgtgaattgc aatcacgggt 240  
 tcatatatgt cacagcacag ggagttttga agatttgcca attaccttca gcatcaatct 300  
 atgataatta ttggccagtg cagaagattc ctctaaaggc cacacctcac caagttactt 360  
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<210> 3728  
 <211> 443  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-G2  
 <400> 3728

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 aataccttgg taacagccta tgggtataaa attgggttcag aagcttatga agttattctt 180  
 gtggagcttt catctctgat aagtgtttca gacctgcaca tgacagctct tgcactcgaa 240  
 ctctgctgca ctctgatgac tggaaagagt tgtagtgaaa atatcagttt ggcgggtccgc 300  
 aacagagttc ttccgcaggc actaacttta gttaaaagcc cattgctcca ggggtcaagca 360  
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<210> 3729  
 <211> 457  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
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accagtcctg aggagcttac tcccaggag ataaagaagt ttgcgaggct tgatattgat 120  
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 actattgggc agggacctga ggaaaagggg atgactagag aaactgggtt tgacatttct 240  
 gttgctagtg agattatggc tgttttggct ttgacaacct cactaggtga tatgananag 300  
 aggcttggta aaatggatg tggtaacagc aaggcagggg atccnataac ancaagatga 360  
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 tgcanacact ggaagggacc cctgtccagt catgcct 457

<210> 3730  
 <211> 417  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-G5  
 <400> 3730

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 tggaacgtgt gcgatatgtc tcgatgtcc atctgaagca gtctgtgtcc cgtgtggaca 180  
 tgtcgcggga tgtatgtctt gcttgaagga gatcaaacc aagaattggg gatgtcccgt 240  
 ctgtcgagcc aagatcgatc aggttattaa gctgtaccgt gtctgaaaac aggtatcaac 300  
 aacaacatgg gattatctat atccttcatt gaactattga aactatatct ctctatttac 360  
 acaagctaaa atcaatanca aggtttcctt ttaaccaaag gctaaacaan tagttgg 417

<210> 3731  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-080-Q1-E2-E10  
 <400> 3731

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gtcatgaccg ccggtgaaca aatcatcact ctcgatgtcg attctcagga gactgttgag 180  
aatgttaaag ccttgctcga ggttgagtcc aatgttccga ttcagcagca gcagctgttg 240  
tataatggaa acgagatggg aaattccgat aaattgaagt gccttgggtg ttaaggatga 300  
tgatttattg atgatgatgg tttccaatgc ctcactctggg tgccactaag tgcgggcccgg 360  
ggaaatggan ttggggcatg aaatcccgna tgggggtcaac ctttggancc ctg 413

<210> 3732  
<211> 387  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-080-Q1-E2-G9

<400> 3732

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agagcactaa gaaagaagcc gaggacgaag atgaatctga agaattctct tcaagattcg 180  
ggtttaggaa gttcttgcgc agcaaagtgg aaggcgccat cgagtctcga gggtttcaca 240  
ttggagggaa caagaaggat gaagatgagg cggaagaaat cgagactaag gagattgagc 300  
ttgaagacgg agaaacgac catgccaaag acaaattctct tctctgcag accttgattg 360  
atattcccaa gcagcaaaca ngggaat 387

<210> 3733  
<211> 426  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-079-Q1-E1-C8

<400> 3733

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ctcgatatcg attctcaga tctcaaagct cttcaggtca tcgaaacaga gctcggagtc 180  
aacagtcaac gttcttcggc cagtgatgtc aacccttgcg gtcgccgagg agttttctgc 240



gagagacggc actctgccac caccggagaa tacgttctcc gtgtcacgag gctcgtctac 300  
 cgatncagga gcttgacggg gactatctct cgggtcatcg gaatgttgtc ggaagctcaa 360  
 ggaacttact ttgtctaata accaagttgg gtcaaacgct gttccggtgg atatcttaan 420  
 ctgtta 426

<210> 3734  
 <211> 402  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-079-Q1-E1-C9  
 <400> 3734

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 atcgattcct cagatctcaa agctcttcag gtcacgaaa cagagctcgg agtcaacagt 180  
 caacgttctt cggccagtga tgtcaaccct tgcggtcgcc gaggagtttt ctgcgagaga 240  
 cggcactctg ccaccaccgg agaatacgtt ctccgtgtca cgangctcgt ctaccgatnc 300  
 angagcttga cggggactat ctctccggtc atcggaatgt tgtcggagct caaggaactt 360  
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<210> 3735  
 <211> 478  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-079-Q1-E1-D1  
 <400> 3735

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 tacagaacca agagcctctt tctaatacga gttactttaa tccccttgaa ccatgtcaaa 120  
 gagaaagact aaagagccaa aggtcgatgt tgtgactctt ggaccatctg ttcgtgaggg 180  
 agagcaagtt ttcggtgttg tccacatctt tgcttcattc aacgacactt tcattcatgt 240  
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tgatagagat gagtcctcac cttacgcagc tatgcttgca gcacaggatg ttgctcagcg 360  
atgcaaggaa cttggtatca ctgccatgca tgtgaagctc cgtgccacaa gtggaaacaa 420  
agaccaagac acctggtcct ggagcanaat cgggccctaa aanccctggc ccgttccg 478

<210> 3736  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-079-Q1-E1-D2

<400> 3736

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gttgatccgt ttgaatttgg tgtttgttga ggcggagatc tcgaagatga agcagcttct 180  
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attcgttggtg gagaagaata gtttgtcggg gacttcgccg gagagtataa aaggaactca 300  
tgatagtgca attggtaact tcgggattcc tcaagtacgg gtggaagtat ggctggtacg 360  
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<210> 3737  
<211> 416  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-079-Q1-E1-D9

<400> 3737

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ggaagtatga atgttggtta ggccgaggct gtgactatct ctgctgaaga gtattctgtg 180  
cttgctcgta gtgctagaga cgcagaggaa gaggcgagaa agcgagtgga agatgcaatg 240  
tcgagagttg aagaagctaa tgtttcaaag aaggatgttc tgaagaaagt tgacgaagcg 300  
gctcaagaaa ttgaaaccag caagagagta ttggaggaag ctgtggagag agttgacgct 360  
gcaaatgctt cgaagatcga agcagaagaa gcgctgcgaa aatggcggtc agagaa 416

<210> 3738  
 <211> 413  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-079-Q1-E1-E10

<400> 3738

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tttcttacac cattgtccaa gctttctcct ttttcgaaga aatctggaga gagatatgtg 180
ctgacatcaa ggaaggtaat cttagctcaa gaatcactct gcccaagatg agaaaagctg 240
tattggctct gatcagacca aaccgctctc ttgctttctca tatcgaggag atctgcttag 300
agctggaaac aaatctcgga tgggttcggtt tgatttcaaa gctttggggc aaatgcaaaa 360
tttatctcct caatcatgac gggttctatg ctgccgtacc tgaataagct gan 413
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<210> 3739  
 <211> 342  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-079-Q1-E1-E12

<400> 3739

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tgtattcatc tttgttatag agtatttggt attgtttgct ttcaaattct cattttttgg 180
ggctcttctat caattgtttc tttggtatct ctttgtgaaa taaaagattg gtaatattgg 240
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<210> 3740  
 <211> 436  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-079-Q1-E1-E4

<400> 3740

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cgccgaagaa tctcgaatcg tccatgttta ccacacagtc ttccatggtt tctccgcggt 180  
tgttactcca gatgaagcag ataatctccg taaccacca gcagttcttg ctgttttoga 240  
agaccgacgt cgagagcttc acaccacag ttctctctcaa tttcttggtt tacaaaacca 300  
aaaaggacta tggtcagaat ctgattacgg atcaagacgt aatcattggc gtttttgaca 360  
ccggaatttg gccgggagcg gangagtttc tcagatttta acctcgggcc aattccaaaa 420  
agggggagaa gcgttt 436

<210> 3741  
<211> 403  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-079-Q1-E1-E7

<400> 3741

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tgataagtct ctaaagaaga ttgatgattc tggattacat tatcatggga ggagcttggt 180  
caaggaagag agatcaacia gttgaggata ttttaaacag aggtgtctct ggaaaatata 240  
gcaagagttc aagttcgaaa tggttagcta cttcgctctc taggtctggc tccgatgtta 300  
aacggaagaa tggagaatgc ccgtcgctta tggagctctg tgtccgcaag atacagggag 360  
gacattggnt agatatacca aggttctccg ganctaacct aga 403

<210> 3742  
<211> 394  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-079-Q1-E1-E8

<400> 3742

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tgttaaaatc tcaaattctg cccacatttt ttgacattcg tagaggaatt gaaggatctt 180  
tgaagaaggg ttttcnaaaa ctttgtgaag ctgcagatga agctgttcgt aatgggtccc 240  
aagtacttgt tctctcaaga cagatctgat aatccggaac caactcgacc tgcaattcca 300  
atgttggttg ctgtgggggt ctgttcacca acatctgac cagaacgggt cttcnggatg 360  
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<210> 3743

<211> 415

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-079-Q1-E1-E9

<400> 3743

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acccaattgc ctgcggaatc tctgcaacat cattcttcag ctgagggacg actccgatcc 180  
tccgggagag ttttctgctc ggaatctggc gccggatgct ggaactgtgg cgagaaagct 240  
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tttcagattt ttgggcctgg agaagaagta tgagatagat cctggaagcc ttgaaggcaa 360  
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<210> 3744

<211> 308

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-079-Q1-E1-F1

<400> 3744

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gcaagcaaca cacagcggaa ctggcctcga gatttgtacg agaagatagc tcgaagcttt 180  
tgaatctaag aaattcgaat acttgtctaa aaaagatctt gtaagaagct gttaaaccaca 240  
tttttgttac ttaacctcga ggatcacttt ttgttnnnnn nnnnnnnnnn nnnnnnnnnn 300  
nnnnnngg 308

<210> 3745  
<211> 423  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-079-Q1-E1-F3

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aacaagaaga tattcatctt ctctttggag aggtatcaaa acgatctttg ttctcttcac 180  
tatgtttctc tctttcatca tcttttctgc tccgatcttc ctgccgctcg ccgacgccgt 240  
cctccctctc gcaatcctct catcctctc accctccctc aaccgcctat ctcttcttag 300  
ttttccggcg acgatttatt cttacctcag taactacgat ttccgttact ctctcatcga 360  
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ncg 423

<210> 3746  
<211> 423  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-079-Q1-E1-F8

<400> 3746

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aagatcagaa gcagtctcag aatcttcgac atcaagaant tggtcacaag agtctcttac 180

agagc gatga tctctaccag tatatactgg agacaagtgt gtatcctana gaaccagnat 240  
cantgaatga actcagggaa gtgacagcaa aacatccatg gaacataatg ancacatcag 300  
ctgatgaagg acagtcttta ancatgcttn tcaagctcgt taacgccann ancacaatgg 360  
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ggg 423

<210> 3747  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-079-Q1-E1-G1

<400> 3747

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tattatcatg catttctaata ctctactttg tcaattccta tactttcact ctcttccaat 180  
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aaaatcattc ttcttctcgc tgaataatcg ttgatttcac ttcttcttct ggtcttaaaa 300  
aaattcaaga tctatacgag aaaacacaaa acaagtaaaa ctttttcaac cgtttttcct 360  
gtcggtaaag tttggattcc tcctaataaa atttgggcct aatgtncacc aaaagaaaa 419

<210> 3748  
<211> 417  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-079-Q1-E1-C7

<400> 3748

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ctgaaactct tcatacacgt tgtagaattg cacaagggag acttaatcca acagagctaa 180  
acgatgatga aagtagagga ggaggacttg atgaacagaa aataattaat aagccaagtc 240

tcttgaggaa tcgtccattg atggctatca tcattgttta ttgtgttttt tccctccaag 300  
 agatagcata caatgagata ttctcactct gggctgtag tgaccgaagc tatggaggat 360  
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<210> 3749  
 <211> 494  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-H7  
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 agaaatagtg tttgtgggag ttacatgttt tgcaatagag atgacatatc ggggtaatgt 180  
 gcatgatttt agtgggtgatt aangagtctg aagttgggan gaatgtcga cttgtacatt 240  
 catgagctan gcgattatct ttcggatgaa tttcatgggg aaacgatgat ggtatagttg 300  
 ccagactcag cgtaatgagg atgngagggtc agtttccaaa ttcctagttt agtaaacang 360  
 gaaagaaaac gaaacaaaat gatgataatg ggtaatggga ccaaaccatc ctaaaagnag 420  
 taatacnttt tatcaanngn gnagaaggca anaccatgnt aacggaaaaa aatcccatgg 480  
 gccctngacg aaaa 494

<210> 3750  
 <211> 498  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-079-Q1-E1-A4  
 <400> 3750

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 gattcctcgg tgggtgaaaac gttctttgta tcatectccc taagtgggga gttatagcct 120  
 tcaagttggt ggtaaacaaa caaatgggag ggcggtggga aaacgtcaaa gcccggtgtt 180  
 aaagccggga actggacggt gatgggatcc gatgggatca agaacaagtt caagaacaat 240



cataccccga aggggagtttc tcaattgtca tcatcgaatt tcggggtcaga gccgtcagta 300  
 tcggggacaag atgaacatag attgtggaat tcgatgggtg aggaagcaga acgaatgcag 360  
 tattcaaata ttgacgattc gttggatcag gagacgaaga agcgggttcgt gtcccatgta 420  
 aagctccaag tanaaacaaa ngaagacact ggggtacntc aaaacaaagc tnaagtttcc 480  
 aaacaanaat gtccccaa 498

<210> 3751  
 <211> 404  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-079-Q1-E1-A5

<400> 3751

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 gaactaccgt gtcggcgata atggattgga atcgaagaag gaagctatct tccctagcta 120  
 tgatttccaa cctatgcgcc ctaatgcctc cgccggattg tctcaccacg ctttagatct 180  
 cgccggatct gttaattcca cggctgctan ggtttgggat gcgtctgac ctaaaccggg 240  
 ttcaagcttc ttccgcaaga agttatggct ctatggactc tctcgaacct tcaaagttgt 300  
 ttgctgagaa ggatcgaaat tcccccgagt cagcgattat atctgcgatc gattggacaa 360  
 tgaaaggcca tgctgataaa ttgttacaag ttaagggaag ngtc 404

<210> 3752  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-079-Q1-E1-B12

<400> 3752

nnnnnnnnnn nnnnnnnnnn nnnnnnaaac aagattatta gattaaggag gagaacacat 60  
 atcatatttc angaaaggt gaaaaaacag atcctaaatt agatgtagaa caanaactat 120  
 tttgtctagt tgtcattttt tcntgtcttg tcctaattta caacttgtca tttcaatata 180  
 aaatattgan aaaggngaaa caaattgaag aaaaaaaccc aaaaganaag aatttgtcac 240

aagatgttga taatcgctg cttcttggaa caccctaacg aaaaacaaat catcttcccg 300  
 angatctctt cttgccaaac acactctact ggcagtcgt ttggtttctc gttactcaca 360  
 ttganaaatg ttgactccga atangcctaa ccacagtctg aaccgggact anaccgggac 420  
 t 421

<210> 3753  
 <211> 308  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-079-Q1-E1-B2

<400> 3753

tgatgtccct gcttctgtta ttgcagcttt caatagtcag cttcctggaa ctcaatctct 60  
 tgggtgctact ttgtttggtt ctactcctcc tgttcctgac aacatcttgg ctcaagcctt 120  
 tcagacttct ccaggaactg ttaaacacat caaatccaag ttccaaccca agaaatgatc 180  
 atcacccttc ctttatattc attactacag ttctgttttt ttctaaaggg aagatctttt 240  
 tatcttcttt gatttgtctt ctgtnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
 nnnnnngg 308

<210> 3754  
 <211> 267  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-079-Q1-E1-B3

<400> 3754

gacacagaga gtcacagttt ctatctgcga aggccaacaa atgaaatatt tcagggttaag 60  
 aaactatgtc tgatgatgtt attgtgaact agttttgagt tataacacta tttttactac 120  
 atctctgaaa agaagactgt tgatattagt tttgaagaga ttattcccaa acaccatttg 180  
 ttttgggtcaa catgaacaac ttaattgttc tttgtttatt gttgcnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnnnnnnnn nnnnngg 267

<210> 3755  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-079-Q1-E1-B8

<400> 3755

taaaaaaact gattgagaca gagagaagaa agattgcttg aagaagacga agacaaaagg 60  
 aggaaacttt cttctcattt caattaaaaa atccattttt ttctctgggt ttttctttct 120  
 catgtgattg tgtaattgat tcttatcggt ttctcgcaat cattacggct tcttctgaaa 180  
 tcaacacgct caatttcctt ccttggaataa ttttgggggt ttgggtttgt tctgtttca 240  
 ttcgtgtgag atttgattac ttaagcgctc agatgaaatc atgataatta agaagcacia 300  
 gagagaggaa attagagtcc tttgggtcaat ttattgggga acttgattgg gatttagtca 360  
 gcttcaaagt gaggaactga agatggagaa tggccatgan gaaagattgg 410

<210> 3756  
 <211> 415  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-079-Q1-E1-B9

<400> 3756

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 cgtcgtctaa ctcgccgccg gtgagtcac gaggtgactc ggactcgtcg tgttcgttac 120  
 tgagtcgttc actcgggtct aatctgggaa acgacgtcgt tgcgtctctc aggaatctgc 180  
 aacttaataa agtgaagtct tctctttcgt cgtcatacaa caatcaaate ggaggatacg 240  
 gatccggatt cgggtcgctt cgtggatcgg ttttgggtcc tgggttccgt agcttaccaa 300  
 ctacaccgac ccgacctggt tttatgaaca tttgggagaa tggcttggag gaagaaccgg 360  
 cgatggaacg ggtcgagtcg ggtcgtgaac tgcgagagca actgttcgag aagct 415

<210> 3757  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-079-Q1-E1-C10

<400> 3757

acgcgtccgg ttccaacagc tgctatagca cctgcttcag cttgtgctaa gagctgtaca 60  
tagtgctctt gttggcatca gaaatagtct tgatcctgaa cataaaaagg aatccatgga 120  
aaaatactta ggccccgaca aacaaaggaa gcaggaccaa caccgataaa ctgagattat 180  
ccatgttggt gtgacttccc ttttacatat agcatgtgta taggtttgaa tagagtaaaa 240  
gtgcagaacc attcttttaa ccatcgaaaa gccaaagaga tgggaaaatt tttggtatag 300  
aatataaatc ttttaaacad tatagaatca ttcagtttgt ttgtttcctg tacataaaca 360  
tttctgatct tgctccattg taaatttacc ccaccaagtt tgccaaatga gtgaaa 416

<210> 3758

<211> 416

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-079-Q1-E1-C11

<400> 3758

acctctcctg atcccgtaat gaagaaaacg aagacgatgg tggcttccat ctccaccctt 60  
attagacgga cctatccttc aactaaccag tgtaattcac tcgcgacgat tcaatcacia 120  
acccaattgc ctgcgaatc tctgcaacat cattcttcag ctgagggacg actccgattc 180  
tccgggagag ttttctgctc ggaatctggc gccggatgct ggaactgtgg cgagaaagct 240  
gcctttttgt tctgtaactc atgccgtagc attcaacctg ttgatgactc cgtcgactat 300  
tttcagattt ttggcctggg agaagaagta tgagatagat cctggaagcc ttgaaggcaa 360  
gtacaaagat tggcaaaaga agctacatcc tgatttagtt cataacaaat cctaag 416

<210> 3759

<211> 461

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-079-Q1-E1-C2

<400> 3759

taacttctac gttgnccngn cccggtcaan aatncccggt tcgaccacg cgctccnaatc 60

aattgcagag ctataagaga aggaatgcaa aatgggtctc tccaatagca gctgttgtag 120  
ctaacttcca tcttctctatg cgcagtctcg aggataaaaa caggacaaac acagacgaca 180  
taagggtccct tagagtgatc acagccatta agacaccgta tttacctgat ggaagattcg 240  
acctccaagc atacgatgac ttagtcaaca cgcagataga aaacgggtgct gaaggtgtga 300  
ttgttggtgg tacaactggt gaaggccaat tgatgagctg ggatgagcac ataatgctta 360  
tcggccatac tgtaaattgt tttgggggaa ggatcaaagt cattggaaac actgggaagt 420  
nactcgacta gggaagctat tcatgccact gagccaggan t 461

<210> 3760  
<211> 475  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-079-Q1-E1-C3  
<400> 3760

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aatgctctca cactcttccg tctccaaacc gacacacacg gcaacctcgc cggaaactgg 120  
accggtccg acgcttgtag ctctcatgg caaggcggtt cttgctcacc atcttcacac 180  
cgcgtcactg aactatctct cccttccctc tccttacgag gaccattaac ctctctctcc 240  
tccttagacc aacttcgtct tcttgacctc caagataaca gactcaacgg caccgtttca 300  
ccactcacia actgtaaaaa cctcagactc gtttatctcg ccggtaacga tctctccggt 360  
gagattccta aagagatatt ctttcttaaa cggatgatac gtcttgatcn ctccgataac 420  
aatatcccgt gggagttatt ncanggagag aattccgggg gttaccgggg gttta 475

<210> 3761  
<211> 386  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-079-Q1-E1-C4  
<400> 3761

acgcgtccgt ttctctttcg ccatnaaaac tctgtttcct ttttcagana ttctcaggag 60

aagattcatt ttaccctaag aaaanaantg tcnaacattc ttcagaatcg gcgatcttcg 120  
 ttttctcttt cgacgaaatc ttcattagcg agtcgtcaag caccatcttc atcggagaat 180  
 tctgttaaac ttatgccggc gatgacgaan aaangagcac cgттаagtna cattaccaat 240  
 kannanatcg cctcacgatt acaaaattct gattcggtac attgttcaaa caagtcaanc 300  
 gaaattgann gatagcacca agtgtttgcg ttaatgccag tttctctanc aatctgcanc 360  
 aaagcatagt tcctcanaaa gttgct 386

<210> 3762  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-079-Q1-E1-C5  
 <400> 3762

acgcgtccnc tggaacactc tttgtcggat ctgatggcca tggcaaccac ccagagaagg 60  
 atagtgaaaa ttgtaaagag aaaaatgttg taccacctgt taatgaatcg ccacatgcta 120  
 aagatactga tgatggcttg atagagatta cagtccttga gctggagatc acccgtgcag 180  
 aagcagaagc agaagcagaa gcgcatgttt gtgagagtga tgaggactta cccaattatt 240  
 ctgacattga ggctatgata cttgacatgg acttggaacc tgatgatcaa gataatcttg 300  
 atctcgaagt ctccaagtat caagagccaa gacatgaaaa gaacaatcat aagacttgag 360  
 caggctgctc attcatatat gcaaagagcc attgcttccc gtggtncaat 410

<210> 3763  
 <211> 416  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-079-Q1-E1-C6  
 <400> 3763

acgcgtccgg catgctcgag aattcatgat ccaaagttga aagaaagctt cgagaactct 60  
 ccgaggcatg attcctatgt gcctaaattc gaggctgagc ttgcacagtt ttgcgagaag 120  
 ttggtgaatg atcttgatag gaaagttagg cgtgggagag aacgtcttgc acaagaagtt 180

gaaccgggttc caccaccttc tctatcagca gagaaagctg aacaattgtc tgtcttggag 240  
gagaaagtta agaacctttt ggaacaagtg gaagcacttg gtgaagaagg caaagtggat 300  
gaagctgaag cgctaagtga gaaggtggaa gggctaaatg ctgagaagac agtggttgta 360  
caacgaccaa ctgacaaggt actcgcatg gctcaagaga agaagatggc antgtg 416

<210> 3764  
<211> 495  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-078-Q1-E1-H4

<400> 3764

gcctacaagt ccggaattcc cgggtcgacc cacgcgtccg gtggaagtgt gataggatca 60  
atggtcatta tcgtgggact ttatatactt ttatggggaa aaagcaagga taagtctgca 120  
tcagtgacca aacaagaacc attagatctt gatattgaag gttgtgggac agcaccaaag 180  
gaactcaata gtactgccca tcaagtgtct gcaaaataat aacttcaaga tataatctaac 240  
tgtttcccat atcgtcaatg aatgatttct aacttgaact tttattaagt tcaagcccac 300  
gcgtccgcgg acgcgtgggt cggagaattg tagtgatcgg agaaaatgag tggcgtgggt 360  
ggggttggtg gtcttgantc tttcagcttc gaattngctt cntcgcttct tccgtcctgg 420  
gtttaaaggt tcaagcattc cgggataagn tacagaaatt tatgggnnaa gttcattgaa 480  
attggaagg ncaca 495

<210> 3765  
<211> 453  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-078-Q1-E1-F4

<400> 3765

nagagaagta attgatgttg atgatgagct tggngatgtt ganatgatat ctgatgatac 60  
aagtanggag ggtgtcgaaa acgtggctat ggangtggac gacgtggaag agaaggcgga 120  
gatgggaaat ggattgtttt ctgaggttgc cagtctgaaa aatgggagct tgagggtggg 180

tgaatgttct aaagctaata gtagttcact cgttgtgaat cgccctgtga ctgatcgtca 240  
 caagttttga agcatacaga aaggttcttg agagtgtgt gaancggact tctaaactga 300  
 aagacagacg ctttgttgat ttttttaaan nacagaggtc gttncctttac tacgaanccn 360  
 tgtcctcctt tttggnnacc agnataangn acccagttnn aggttgtaca acntncaggc 420  
 atttgnccc cctttccaca acaagganga cga 453

<210> 3766  
 <211> 480  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-F5

<400> 3766

acgcgtccga agaagagaat cgttgagatg gagagtgaag atgcttatag aatggcgttg 60  
 aagactatgg ttaaatgggt gaagaagaat atggatccat tgaagacgag ggttttcttt 120  
 gctaccatct ctctactca ttacaagggc gaggattggg gaggcgaaca atgaaaaaat 180  
 tgttacaatc aancgacacc gatccangac atgaaccatt ggccatcana ctgcagcana 240  
 accttaatga aagtatang agangaatta gnccaaagag canagtttcc ggtgacngta 300  
 cttaacatta caacaactct ctggctatcc ggaaaagacn cgcacacgtc aatccaanac 360  
 gaaaccattg gaaccccat ngaccgaaan ggatcaagct agncaaattc cggctaagct 420  
 actcaagact gtatnacatt ggggtgccttg ccttggncnt caagatactt ggaaccancc 480

<210> 3767  
 <211> 507  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-F6

<400> 3767

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 aatcttcac catgggaaca aagtttttag ctctgggtt gtctctgtgt cttgttctct 120  
 caagcttcta tcaagtttct tgccaggatg aaggaactgg aagtttgagt acttttagatc 180



taattgagca tgaatatcaa atgtcaattc tctccaaggc aatgaagcag tagatcaaac 240  
 tgagaccagt ggtcagaaaa acagtacagt gtctgataac aacactatct ctttgtctct 300  
 atctgaagaa cctgcantgg gaaactctta aagaatctgt tgatacatca agctgagtta 360  
 aggagctggt actggatgaa gtcgataaac cttcaaagta tgttggacca tattgaactt 420  
 gaagtccga agcacatatc aatgaactta aagaagctgg gttctgatgg naacaacnaa 480  
 gttgaggaat ccaaagatga tagnaaga 507

<210> 3768  
 <211> 505  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-F8  
 <400> 3768

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 aaaatcacga aatctgattt tctctctttt tgctcgaagc caagtctctg cttttacttt 120  
 gatccaccaa cttcatcttc aacctctcga ttttaggtaa gattcttaga gtgattttga 180  
 cttatctaag aatggagcta aagagcatta aggatgcgtt tgatcgtgtt gcgacgaagc 240  
 agaagctctc ttatagcaaa actaatgaga ttgttcatat gttgtctcaa gaaatcgata 300  
 aggctttgag catattagag gagacaccat catcaagata ctatgcttct tgatcataga 360  
 tctatcctcg ctgatgtgaa gaaagtgtt atggagattg ctccaatcac tcaacttgaa 420  
 gctactgaga aagagctaca tgcggnnttg accaaagtac ccaaagttct tgagaaacaa 480  
 ctgaatccag acatatcaaa nggtt 505

<210> 3769  
 <211> 454  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-G1  
 <400> 3769

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ataagcgatt gatctctccn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 120  
 nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnngg cgctctcttc tacttctctc gatecgaccg 180  
 tgaatcacta toggagcaat gactatgatg actccgccgc cgctagatca gcaggaagac 240  
 gaggagatgc ttgttccgaa tccggatttg gtcgagggac ctcagcctat ggaagttgcc 300  
 caaactgata ctgctgctac cgctgtggag aatccaccac ccgaggatcc tccaagtctg 360  
 aaattcacgt ggaccatccc aatgttcact aggtcctaata ccaggaagca ttactcctga 420  
 cgtatttggt gtaggcgggt ataagtggcg tata 454

<210> 3770  
 <211> 474  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-G12  
 <400> 3770

gaactgggtc cctggcctac cgggcccgga attcccggga acgacccacg cgtccgggga 60  
 agtccaaggg ctttgggttt gtcaactttg aaaatgctga tgatgctgct agggctgtgg 120  
 agtctctcaa tgggcacaaa tttgatgata aggagtggta tgttggtaga gcccagaaga 180  
 agtcagagag ggaaacagaa ttaagggtcc gttatgaaca gaatttgaag gaagctgcan 240  
 gnaacttnca cagttcaana cttgtatgtt anagantttg ggtcctaagc atttcagatg 300  
 aggaaactta aagagatctt tctccctttt ggtaccgtta catcctagca agggatgatgc 360  
 cggattctaa tgggaacaag caaaaggctc aagttttggt gctttcncna actcccgaa 420  
 aaagcaactg aagctatttc acagttnagc ggtaaaatga tcnaaagcaa acca 474

<210> 3771  
 <211> 465  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-G2  
 <400> 3771

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ttgagctgca taagaaattt gttgcagctg ttaaccaatt gggatatgag aaggctatgc 120  
 ctaaaaagat tttggatctg atgaatgttg agaagctcac tagagaaaat gtggccagtc 180  
 atcttcagaa attccgcctt tacttgaaga ggatcagtgg tgtggctaata cagcaagcta 240  
 ttatggcaaa ctctgagtta cattttatgc aaatgaatgg acttgatggg ttccatcacc 300  
 gcccaatccc tgttggatct ggtcagtacc atgggtggggc tcctgcaatg agatcttccc 360  
 tccaaacggg attcttggca aactcaatac tcccttccgg ggatcgggtg cgcgaaccct 420  
 tcctcctcct cctggcangg aatggttcct tgcaaaaacc aagaa 465

<210> 3772  
 <211> 459  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> Clone ID: LIB22-078-Q1-E1-G3

<400> 3772

acgcgtccga aaaattatct tctttttctt gtgaattttt ttttggggat attgcatgta 60  
 attttttggg gatttttgag gtttaatctc cattgaaaga agctctggca tttctctgct 120  
 acagtgttgg ttttcagctg cagaattggg gaaaaaagtt tgggtgaattt caggagcaga 180  
 gtattttaagt aattttgggg aattagttag aaaatggagg agaaaggtga aataagtcca 240  
 agtgggggtcg tcacagttaa gggagatgaa gctttgggtc caagaacaga gtttcaacaa 300  
 aaccctagtt ttctccaatt cgtgagtccc acaacggtag tgactcctct cctcctcca 360  
 ccaagctccg tcttccggct ccggtaccaa ccaccgtgac tcctgggtca gccacaagca 420  
 tcaaccggat cagatccacg aaaaaagaac agagggaag 459

<210> 3773  
 <211> 435  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-G7

<400> 3773

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tanattcggtt ctcaagttttc gtgttggtcta atggcgagcg cggcacgggg agagagcagc 120  
 aatccatacg gcggcggtt ggaaccgga ngaaagttcc ggaagccgac ggctcgtang 180  
 tctcagaaaa ctcttatga tcgaccaacg acttctgtga ggaacgctgg acttggtggc 240  
 ggagatgtca gagggcgcg ctggttggtca aaattggtgg atccggcgca gagacntatt 300  
 acntatagtg ctcanaggct cttcnggtcc ctaanccccg gnnaaccgcc tcngggtctg 360  
 ggtgaggacg ccttttataa ntcncggga tcacancana gcaactttcc aatanagaag 420  
 gtgtgaaatn caggg 435

<210> 3774  
 <211> 489  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-G8  
 <400> 3774

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 tctcaaaccg tcacannnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnggcgcg 240  
 actattccct tgctcaagcc gttaagtttg ttgctaagaa cgagactgtg atcgtctgtg 300  
 ctgttagcta ccttttcttg ccttttctta acaactggtt gattagcatt tctagacaag 360  
 aaacatcaag aaaaagttct tgtgatcgct gaagactatg ctactttgta caaagtcaac 420  
 gaaaagtggc ctgggcatgc tgttctcant cctccggggg tggattctca atccgcaaaa 480  
 aaatttggg 489

<210> 3775  
 <211> 515  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-G9  
 <400> 3775

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 tcctacgttt ctaagctctt ctctttgctt cgattcccaa aacgactatt tccaaaaggg 180  
 tttaaagaag ttatgaacac taatccagtg actaatgggt ttgttaaacc tgttcctact 240  
 gaagaagaac aagcaaagat tgaggaagtg aggaagctat taggtccatt accggagaag 300  
 ctttcgagtt tttgttccga tgatgcagtt ttaaggtatc taagggcaag gaattggcat 360  
 gtcaagaaag ctactanaga tgcntaaaga aacttttgaa atggagagtt caatacaaac 420  
 ctgaaggaga tttgttgggg aaggaagtan ctggttgaaa ccagagacag ggaagatata 480  
 tagnatcgag tttgtgtcna taaaaccttg ggccc 515

<210> 3776  
 <211> 468  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 3776

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 aactcaciaa caacagaaag gaggatcgtg gtggaacaaa atcatggcan acaagacgga 180  
 tataatttca tcctcttccg ataaagcttc tccaccacca ccatctggct ttcagaaact 240  
 acttatcctc aangaagtaa ngaaccagtg cttctcttgg gatcanctgg tnanngnatc 300  
 ttgttgcac tttagagtcc cctgangagc ttcgcnagca ttgaatccca aaggctataa 360  
 gcccaaaagt tgtttcatt gggtccttac cattacggtg aaaaagcacc tccaaatgat 420  
 tcaacagcac aangcctcgg cntctaacag cttttccna gacgaagg 468

<210> 3777  
 <211> 454  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-078-Q1-E1-H3

<400> 3777

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caaggggctg atttttagc tcatgggat gcgttgatag tggatcctgg atgtctctct 180  
aaactccacg ttgagctcaa gaaaatcgtt gatgctttac ctagaaagct aattgtcttt 240  
gttacacatc accatcgtga tcacattgat ggtctttctg ctatacaaga gagcantcct 300  
gatgctattc tagtggcaca tgctaaaact anggatcgca ttggtgggtg gctggtaaac 360  
tatacccaa gtttctggnn ggataaaaca tctatgttaa cgggtcaaaa nactgancgg 420  
ttcatttttg ctncgggga acacancaga atgg 454

<210> 3778

<211> 452

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-078-Q1-E1-F3

<400> 3778

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atctgatgat acaagtaggg aggggtgcga aaacgtggct atggaggtgg acgaggtgga 120  
agagaaggcg gagatgggaa atggattgtt ttctgagggt gccagtctga aaaatgggag 180  
cttgagggtg ggtgaatgtt cttaaagctaa tagtagttca ctggttgga atcgccctgt 240  
gactgatgtc acaagttttg aagcatacag aaaggttctt gagagtgtg tgaaccggac 300  
ttctaaactg aaagacagag gctttgttga tttttttaa gagagaggtc gtgctttact 360  
acgaagcttg tcttcctttt ggagacaaga tgaagaacca gtagagggtg tacaacgtga 420  
ggcatttgta cctctttcta nagaggagga ac 452

<210> 3779

<211> 376

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-076-Q1-E1-E10

<400> 3779

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atcattcttt ggaggcaagt cacaatagca agcggtcaag aaaatcaagg agattgggcg 120  
gttctgattt gaggattggt gtgagccttg gatcgtctca taggaatata naggctgagc 180  
aggcggctgc tggttggcca gcttgcttt gttctgctgc ggctgaggct gtccatgggt 240  
gggttcctct aaaggcagag gcgttccaga agttggagaa gattggacaa ggaacatata 300  
gtagcgtggt tcgagcacgt gaagtagaaa cgggaaagat ggtggcattg aagaanggta 360  
aagtttgana atcttc 376

<210> 3780

<211> 409

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-076-Q1-E1-E12

<400> 3780

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acagcattcc attcatcctc atgaataatt ctacatcagt gaagaggctg gtttcatcta 120  
aggcaatgaa atgtttctac ttcagcaaag acaaaaactca ggatgatgaa gctaagacta 180  
gaaagtttgg ttcagctacg atggctagag gaggatcagg gtctgagttt aattcagata 240  
caagtactgc tacttccatt acttcttctc tgcacgtcct ctcagagaca cacagtanta 300  
atctcaaagg tatttgtcct cgatgacctt aaaaccgcta ccangaactt cagccgcnc 360  
ttgatgatcg gtgaangngg ctttgggtgg ngtcgttcgt tgcgtgaat 409

<210> 3781

<211> 399

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-076-Q1-E1-E7

<400> 3781

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tcaggggttc cgaaagggaa ttgatctcta ttttgaaaga catgatgagc aagcagtgac 120  
 ttgtgaagac ttctttgctg ctatgctga tgcaaataat gcagactttg ctaatttctt 180  
 gcaatggtac tctcaantg gnacgcccgt tgtcaaagtgt gtatcctctt acaatgctga 240  
 cgctcgctact ttctctttta aattcagtcg ggagatacct ccaactccag gccagccanc 300  
 aaagagaacc tacatttatt ccagtnggtt gttggccttt tcgactcaag tgggaaagac 360  
 attactcttt ccnctgttca tcatgatggt acaatncag 399

<210> 3782  
 <211> 407  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-076-Q1-E1-E9

<400> 3782

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 gatctttgctg ttttgaaacg atggcggaag aacataagca tgatgaatct gtgatcgctc 120  
 ctgagccagc tggtgaggtt gtggagagag aatcgttgat ggataagata tcggagaaga 180  
 tccatcacgg tgggtgattct tcttcgtctt cttcatcttc tnnnnnnnnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnncctct tctccttcgt cttctatgaa atcgaaagtt taccgcttgt 300  
 tcggacgaga gcagcctgtt cataagggtc tcggcggtgg aaagccggct gatataattca 360  
 tgtggaaaga acaagaagat gtcctgggtg ggtggtacnt gggggggg 407

<210> 3783  
 <211> 388  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-076-Q1-E1-F11

<400> 3783

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 tctggtttct gtgccgtgga tgttggtgcc aaagccattc atcctgaaaa aacaacatga 120  
 agctagacat caaggactgt catatgcaca gcttgacgag acagatgaga gtcttcaagt 180



agaaacaaat gggggaggac atggacacga agagtttgaa ttcagcgaaa tctttgtgca 240  
 ccaactcatt cacaccattg agttttgtgct tggagctggt tccaacactg cttcttatct 300  
 togtctctgg gctctcagtc tcgcccactc gggagttgtc gtcagtcttc tatgagaang 360  
 tcctcttatg gcttgggggt ttcaacaa 388

<210> 3784  
 <211> 471  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-076-Q1-E1-F2  
  
 <400> 3784

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 aaatcgacca aagggaggat taattaccat gcccttcac ttcgcgaacg agatatgtga 180  
 aaaattagcg gtgggtgggg ttcacgcaaa catgataagt tacttaacaa cacagcttca 240  
 ccttccctta accaaagcag ccaacactct cacaaacttc gccgggacat cgagtcttac 300  
 tcctctcctt ggtgccttta tcgccgactc tttcgcgggc cgattttgga ncatcacttt 360  
 tgcttccatc atctancana tcgggatgga cgttgcttac naatanngg canataatac 420  
 caacgctaag gcnaccanc aatgtanagg agaaaaaggt ttgtgtacta n 471

<210> 3785  
 <211> 465  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-076-Q1-E1-F7  
  
 <400> 3785

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 aagaagaagc gtcggtgttt tgcacggccg acgaagcatc tctctgcggc ggctgcgacc 120  
 accaagtcca ccacgctaac aaactcgct ctaaaccatct ccgtttctct ctcttttacc 180  
 cttcttcttc caacacctcc tctcctctct gcgacatctg tcaggataaa aaagctctgt 240

tgttctgtca acaagataga gctattttat gcaaagattg cgattcatcg atccacgctg 300  
 cgaacgaaca cacaaagaaa nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 420  
 nnnnnngtcc tgggatnadc antctctaata cctccnccctc tcaag 465

<210> 3786  
 <211> 466  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-076-Q1-E1-F8  
 <400> 3786

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 tttctactac ttgggtgttg gagtcatggc tgccntantg gcagcggttg agcttancaa 120  
 gacgaacaag gatcgatca acacttcgtc ttccttcaat tcattcaaga acaattacct 180  
 ccncgttttc tctattatga tggctgggga ttggcttcag ggtccttatg tgtattacct 240  
 ttacagcact tanggttttg gaaaaggaga tattgggtcag ctattcattg ctgggttttg 300  
 ttcgtaaatg ttgtttggaa ctattgttg atctctggct ganaancagg gtccaaatag 360  
 gnnatgtgtt anatanngta gtagntaca nactaagttt catcancaaa gcactctcca 420  
 cantanaacn gtttgatgg ttgggccgta tccntgggtg ggattt 466

<210> 3787  
 <211> 389  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-076-Q1-E1-F9  
 <400> 3787

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 cgagacctcc gacgccggaa gttccggtga agaagacgaa gacgaaactc agaatcaagg 120  
 aatgagacca gaatctgagg atcgaggatc aacgagcgat gatagcgatc gtgaagttgt 180  
 gattgaggag agacgatttg gtaaatttgt aaatagtcag agttcttctt ctagcaaaga 240

ttcgccctctt tctgtaacgt tattggggatc cagatgttct tgattgtcct atttggtgcg 300  
agccattgaa gattcctatc tttcangttt tgcttctca ttgattacac aatccattga 360  
aggcactccg attttagggg agaagttcc 389

<210> 3788  
<211> 506  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-076-Q1-E1-G2  
<400> 3788

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cttcgtgctt tctcaaggcg ttgcctcagt acatccacaa agtattgtgt tgttgacaat 120  
ccttacactg gcgagatcca ttgtaaaatc ccctatttaa gttccgatca aatcaccaaa 180  
gtggtggatc gtagcgctgc tgttcaaaag agctactatc atgaatcgac tttggatagt 240  
cgcattgaac tttgtnaaaa atttatggat gagatgaaag cccggactga ttctatcgcc 300  
actgacattt caaaacagat gggaaagccc ctaagccaag ccaagggaga gattaagggg 360  
ttgatcgagc gagcgacagc gatgattgac ctgncaccaa aggcactcgc agacgaagtg 420  
ctgcccanaa aaggctttta ccgcaagctc gcccgcgagc tgttggtgtg ggtgttggtg 480  
tantggcccc ttngnaaata gcctct 506

<210> 3789  
<211> 469  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-076-Q1-E1-G3  
<400> 3789

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ttgaatgatg aagaatatga taagctcaaa ctcaaactaa agattgatgg tagcgacatt 120  
gtgagcgagg gtccaagatg cagtctccgt agtaaaaagg tgtatagtga tctcgctgta 180  
gattatttca aaatgttatt gttgaatgtt ccagcaaccg ttgttgcctt cggactcttt 240

ttcttctctgg acgacattac aggtttttgag atcacatata tcatggagct tccagaacca 300  
 tacagtttca tattcacttg gttcgtctgt gtgcctgtga ttgtatatct ggctttatca 360  
 atcaccaa at tgatcatcaa ggacttcttg atcttgaagg gtccctgtcc gaattgtgga 420  
 aacggnaaac acctcccttc tttgggaaca attctgtcaa atctccanc 469

<210> 3790  
 <211> 471  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-076-Q1-E1-G4  
 <400> 3790

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 acattattta cgattataca ctttccaaca tggcggcctc tgtagataat cgccaatacg 120  
 ctctgtctga gccaggtttg aacggcgtgg ttcgttctta caaacctccc gttccaggcc 180  
 ggtccgattc cctaaggcg caccagaacc aaaccaccaa ccaaaccgtg ttcttgaaac 240  
 cagccaaggt tcatgacgat gacgaagacg tgtcgagcga agacgagaac gagacacaca 300  
 acagcaacgc cgtgtactac aagggagatg atanganant ccaacgccga ncttgaaccg 360  
 tccgttttgg accccgaggg acgaaatata cggctgatag ctggatcgag cgtaaccctt 420  
 ccatgggnac gtctcacaag gaaacatccc ttcaantccg aggggggcct c 471

<210> 3791  
 <211> 456  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-076-Q1-E1-G5  
 <400> 3791

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 ccagttatgg ctatggccgg agaattcttc ggcaaaaaaa ttggagactg tgacggtaaa 120  
 gtcgcgggga acagacagcg aaaggtgggt cttattttacg acgagacgat gtgcaacacg 180  
 acacacctga cggcgaggat caccctgagt gtcccgaccg catcagantt atctgggaga 240

agcttcagct cgccggagtt tctcaaagat gtgtggttct tggtagtagc anagcagaag 300  
 ataagcatct ccaattgggtt cacanaaagg accatgtnaa tttagttaag gagtantagc 360  
 acaaggcaga aagattancg agagaaacna ggattgcntc acatgntgna gttngattta 420  
 tctgaanggg gggttcatect gaangccgca aatctt 456

<210> 3792  
 <211> 463  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-076-Q1-E1-G7  
 <400> 3792

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 tacggtagtg catgctggaa tgtagaatcg atagtccggt ccgtgggtga gtctaactat 180  
 cttgctaate cagccaatgc tccaggcatt ttgcgtatgc actttcacga ttgtttcgtt 240  
 caaggctgtg acgcctccgt tctcctagcc ggacctaact ctgagcgaac ggcgattcca 300  
 aatctatcgt tgagaggggtt taatgtcatt gaagaagcta agactcagct tgagatcgct 360  
 tgtcctcgaa cagtctcttg tgctgatata ctcgcactcg ctgcacgtga cttcgtccat 420  
 ttggggccggt ggaccatggt ggccagttcc attggggaga etc 463

<210> 3793  
 <211> 508  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-076-Q1-E1-E1  
 <400> 3793

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 tctcctctct cttgaaaaat ctataaccga tttctgcaat ggcgacttca gattcgaggt 180  
 cttctccttc atcatccgac accgaattcg ccgatccaaa tcctagctcc gatccagaga 240  
 cgaattcgga gcgtgttcaa agtcaattag agtcaatgaa tttatctcaa cctagcgaag 300

tctctgatgg tagccacacc gaatttagcg gtggcggcga tgataatgat gatgaggttg 360  
catcggctaa cgggaacgaa ggcgaggtta gcaatggagg tttattgcgt gaaagtgtgg 420  
cgggaactag cggaggagaa gttttgttaa nggcggaaaa tcccgggtggg aatgggaanc 480  
aggtgaagaa ncaccgagtt ccgactat 508

<210> 3794  
<211> 447  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-076-Q1-E1-A8  
<400> 3794

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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnntta accgtccact cgccgcangt ttcagttcct cttcatcagg 300  
gtgctanctc tggattcgnc ctacgacgtt nttgttggtg gtgccggaca ngctggatgc 360  
gaggcggtt tagcctcggc tcgantagga ggctagtacn ctgcttctna nattaaacct 420  
cgatngaata ggcttgggag nccgtgt 447

<210> 3795  
<211> 498  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-076-Q1-E1-B1  
<400> 3795

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acggaaggat tcttcagaat atctgatccg atatcaagaa gcccgaagtt cgcttgaatt 120  
ccgtctgagc aatggctttg gtcttgacac cgtacaaggg aaacaaaagt gctgagaagg 180  
cactcattgc agcagagtac gttggtgtgc aaatcgatgt gccctctgac tttcagatgg 240

gtgtcactaa caaaaccct gcgttcctca agatgaacc tattggaaag gtcccgtact 300  
 tganactccc gaaggggtcaa gtattttgaa aagcaaacgc aattgccccg ttaangtta 360  
 cccgattgaa tggngacaac tcccttgaac ggattctccc tgntcganta tgcncaaatt 420  
 ganccaatgg gatgatttnn cctcnantgg nagatntaag caaanancct nanggggggt 480  
 ncggcccaag aaaggggc 498

<210> 3796  
 <211> 420  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-076-Q1-E1-B12

<400> 3796

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 ccattggtgt atttgaacaa tggtgctgaa ggatgtgttg gtcgtgttgc tgctaagctt 180  
 gagatgatgg aaccgtgctc tancgtcaaa gacaggattg gttttangca tgattttctga 240  
 tgcagaaaaa aagggctcta tcaaaccaag nagagagtgt gctgattgag ccaacaagtg 300  
 ggaacactgg gagttgggtt agcattcacg gcagctgcca aagggctaca ngcttaacta 360  
 ttacaantgc caagcgtcca aggagtactg tnnaggangg aatcattccg cttaacnctt 420

<210> 3797  
 <211> 381  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-076-Q1-E1-B9

<400> 3797

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 gacaaagctc gtaagactcg agcaccgggt agcaagatca tgaaccggaa tgaccggag 180  
 tataactctg actctcaatc acaagctcct cctcatcctc cttcttccag aaccaaactt 240

gagcaagttg acacggttag aagatcacgt gagcatatga gaagccgaga agagagcgag 300  
 ttgaaacagt ttggtgatgc tgggtggttc atcaaatgaa ggctgctanc aaagagncag 360  
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<210> 3798  
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 caacatcgaa agtcatgct ccaccgtgaa tccggataaa accgatattt cggggtcggg 180  
 tcaaaagttt cgtcgcgggtt gttttacgga ggagaaagct aagcagttga ggaggaaaac 240  
 cgcagaagct tccacgttcc atgacgtaat gtatcactcc gccattgctt ctcgacttgc 300  
 gtctgatatc accggccgag tcgaggattg aaacggattc ggggtcagat ctggagacga 360  
 atcaattaat gaataattaa tcnttttttt ccnaattcaa gtgttctctg aggatgcaaa 420  
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 tctaggcgtg aaaggctgtc tatgcttgct aaaagagctg ttcaggctgc acaagtattg 180  
 cagcataaga aaccgacttc aagtgttgat gctgatataa caggtggctc aacattaagc 240  
 tctcaggctt tgccaaaaca agaagtgtca acagcaactt ctaaaagtta cacattcaaa 300



gcaggtgaca gagttaaatt tgtaggtcct tcggcttctg caatttcttc tcttcaaggc 360  
cancttangg gaacgggcaa ctggttccca anggaaaa 398

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agaaggctcc tggagatacg agctgggcaa caaaagaact cctcgagttt gtgtcgttca 180  
tgaaaaatgg cgatacatct gttctatctc agtttgacgt gcagggctct ctgcttgact 240  
atatcaagan aaaaaatctt agggatcctc ttcagaagtc tcaagttctt tgtgaccaga 300  
tgcttgtgaa gttgtttgga aaacagcgag tggggtcact ttgaaatgct tangcttcta 360  
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<210> 3801  
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gatacactaa tcatcatctt ccaaaagctc accgtcgccg atctancgcy tgcgagctgc 180  
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gctccatggc ggatcaaaga acttggttga agaccagctt ctgtttcggt ttggagagat 300  
aacggaatct ggaaatttgc tatttctcat cggatttgtc gtggtgatag tgtgactagc 360  
ctgcgcgtca aatacgccgt tcaggttatg ggacataaaa gcggtctaac aacatgatga 420

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468

<210> 3802

<211> 454

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

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ctcatcgccg tcctaagatt tctcatatct gttgcgacgg aagctctatt tccggatctg 180

gcctcggcga tcccgatctc gagtttctcc aagcctcngt cntcgttgca gngacaagta 240

tgcattacaa aatgcggcga catgggttcc ggcaagattc aatgtggcaa acttcnaggc 300

ntttgcctcc cttttctatt atagctaata aatccaaggt tgggtgttctc cctatnggga 360

cttggaattc tccgtcaatt caagcanncc cacnaanttt tctcangatc cctggatgatg 420

gtgactaatt gcntccctgt tatnngttgg ggga 454

<210> 3803

<211> 471

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-076-Q1-E1-C6

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caaaacggcg gcgcaatggg tggacgagct gccggaaccg gcggaggagg accgtcggct 180

ccagttgaca aagaagttga ctacgctcag tacttctgta cttactcctt cctataccac 240

cagaaggata tgctctccga ccgtgtccgt atggatgctt acttcaacgc cgtcttccag 300

aacaaacatc actttgaggg caagactggt ttagacgtgg gcaccgggga gtggaattct 360

tggaanttgg gtcangctca aagctggtgc caaggaaggt ttaagccgtt gaagctacta 420

aganggntgn tcattgctcgt gncntgtca aagccaagaa accttgacca t 471

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<211> 462  
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<213> Arabidopsis thaliana  
  
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atcccanctt tgattctcct ctgcgcgggt tctttgccga ttcttcaatg attacggcg 240  
gcgagatgga cagctatctt tcgactgccg gtttgaatct tccgatgatg tacggtgaga 300  
cgacggtgga aggtgattca agactctcan tttcnccgga aacgacgctt gggactggaa 360  
atttcaagaa acggaagttt gatacagaga ctaaggattg taatgagaag aanaagaaga 420  
tgannatgaa cagagatgac ctagtagaag aaggagaaga ag 462

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<211> 459  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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tggtggtgat gatgaaggca actcgaggga cgagagatcc agatctactt gggctaattg 180  
ggtttccggt gaggaagagg atcagaatcg cgcgggagga tcgtcgcacg gccgtcgcca 240  
naattcagag gagaatcaat gggagaagaa gggcgaaagg ctccccacaa ggcattcaca 300  
atcacatgag gaggaccagg aagagaatac atatgctggct aaaagtgagc gagaaacaan 360  
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459

<210> 3806  
<211> 381  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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gtgaanttga aancatcgat atccaaagta acgagcatag tgcttatgtc acatttaaag 180  
aaactcaagg agcaganact gctgtgctct tatctggagc gattattgcc gntcaatcag 240  
tcatcattga gttggctccc aactacagtc caccagcagc ccctcatgct gaaacacaga 300  
gcagcgggtgc agaattctgtt gtccagangg cagaagatgt tgtgagcagc atgttaagca 360  
nagggtttca ttcttgggna a 381

<210> 3807  
<211> 501  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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aatggaaac tggaaggaat ttttacatgt ttacgacaaa aatgctgatt caccaagtga 180  
tccttcgagg cgttctcatg aagatttggg tcagtttctg acaactttta agaagaaaga 240  
agatttgcaa cttctgaaat gtcacgcan tcatcntctg attganaatt tgaaccaaga 300  
ntccaagat gaagacactc ctgagcagat gctaagttag attgacagtt gagcatccga 360  
nttacnctt agactattct ttcaaggcca tactcagagg actgggtttg tatcccgatg 420  
ttggaatgan natganaaag ggtgaatgng aatcaactaa catggganct gttgantgtg 480

acaagggttc cgttggtgaa g

501

<210> 3808  
<211> 383  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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gtttccctta tcttgcttcc cggcgatccc gcgatttcat caacgggagg gatgatttcg 180  
ctgacgatac gaggagctgg aaccggaaga tcaaaccgga gtatgggttc nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnntg gatctgttac 300  
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taattttgcc cgttcgatn tcg 383

<210> 3809  
<211> 382  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
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agaaacaagt gaagaagagc gaaaacccta ggagttactt caagtgtacg tatectgatt 180  
gtgtttccaa gaagattggt gagacggctt ctgatggaca natcactgag atcatttata 240  
aagggtggtca taatcatcct aagcctgagt tcaccaagag accatctcaa tcttcattac 300  
catcatcggg taatggggag gcgcttggtt aatcctgctt ctgttggtan tgaaccctca 360  
atgatcaagt cagagaactc tn 382

<210> 3810  
 <211> 421  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 3810

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 ctcttgcaag gccaacccca attcctaattg gaattgaggc aatgtcaaga actatggaaa 180  
 agccaagaaa cttggactct gttgataagt ctaaaccctt agagctcaca gaaattgttg 240  
 atccgactca gtgccgacaa gtgacaatgc cagatagcaa ggactctgtt agcaagggtg 300  
 ctcggtttct ttacacaaat tctggcggtg gtgttttggt tcttgatna aatgggtgtc 360  
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<210> 3811  
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<223> unsure at all n locations  
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 tcaactccacg cgcaacgaat ccacgcgcct ccggaactcg tctggtcaat cgtacgacga 180  
 ttcgacaaac cacaacata caaacacttc atcaaatcct gtcctcgcga acaaaacttc 240  
 gagatgcgcg tcggatgcac gcgcgacgtg atcgtcatca gtggattacc ggcgaacaca 300  
 tcaacggaaa gactcgatat actcgacgaa cgaacgggag aagttaccgg gattcaagta 360  
 atcatcggag gcgancatan ggtggacnna attannaaat ccgttacgaa cgggtgcatcn 420  
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<210> 3812  
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 <212> DNA  
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<223> unsure at all n locations  
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<400> 3812

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ggcttatcta gttagtcaca acctcctcaa cgctcatgca gaagctgttg aagttttccg 180
ccaaaagggt aaaggtggga aaattggaat cgcacatagt cgggcttggt tcgaaccaca 240
tgatcttaaa gattcaaagt acgttccaac tggtanccgt gtacttgact ttatgttggg 300
atggcatcta naccctaact cttttggcga ttatccacan natcatgaaa gaccttcttg 360
gncacagatt gcccgaattc acttcttcac naagcaanac aantgaaacg ttcgaccgca 420
ntt 423
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<210> 3813  
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 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
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<400> 3813

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agattataac ttttttgctg ggttttgag actatggctg gtggtaacga agtcaacctt 180
aacgaatgca agagaattgt cccactcaac acatgggtcc tcatttccaa tttcaagctt 240
gcttaciaaag tcttcgctcg cctgacggg tctttcaacc gcgacctcgc cgagttcctt 300
gaccgtaaag ttcccgccaa ctctttcccc ctcgacggcg ttttctcctt cgaccacgtc 360
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<210> 3814  
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<212> DNA  
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 tgtagcaaga agaaaccttc ctacagattct cttcctcaac actcttattt ctccaacagc 180  
 ttantagcna acaatcctcc tcaccataac tcaccangaa antctcttca cacaaaanag 240  
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 tcttgatctn gcaaggtttc aanaangagc aagatcaacc gatnanngat tcgtcttaan 360  
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<210> 3815  
 <211> 428  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 gaaacttgtc gtggacctgc tctatgggat atcttctgta agagaaatcc agagagatgt 240  
 agtggccaca acgccgatgt ggccgttgat ttcttccatc cggtataagg aagatattca 300  
 actaatgaag aatcnaaaca cagacgcatt cagactctca atcgcatggg caagaatatt 360  
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<210> 3816  
 <211> 445  
 <212> DNA  
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<223> unsure at all n locations  
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<400> 3816

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atgtaaagat atacaaatat agagagatac gtcaggccac tgatgatttc agtgctgaaa 180  
ataaaattgg agaaggaggg tttggttctg tgtacaaggg ctgtcttaaa gatggaaaac 240  
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agatcaatgt gatatcagaa atacagcatg agaatttggg ttaagttgta tggatgctgc 360  
gtggagggga atcataggat tcttggtaca atttccttga gaacaataag tccntgataa 420  
gacgccttcc tagctggggg ggcta 445

<210> 3817  
<211> 489  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-075-Q1-E1-H2

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aaaaggtttc gacacgangg agcttgaaga gctctaattc tgttggtgcc ttgacggatt 180  
cgcactctgc tgttgtttct tctcagccaa gaaaccgtgg aggtagagta atgtcttggg 240  
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actgagaagt cagaggaagt ttctgaggtg ttgaangatt ctgggttctgg tgttgagaag 360  
ttgaagagga gaattgatgn aagcaaaaca gaagtaggga tgctgcgtta acacaaagtc 420  
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gttactgtg 489

<210> 3818  
<211> 420

<212> DNA  
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 <223> unsure at all n locations  
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 aagacgacaa gcttgttgag tatgatgctt tgcttnaga tcggtttctc gatatactcc 180  
 aggatattgca cggatgaagat ctccgtgaaa ctgttcaaga gcttnatgag cattctgcag 240  
 aatacgaagg gaagcatgaa cctaagaagc tagangagct agggagtgtg ctaacgagtt 300  
 tagatccagg agattccatt gttancgcta aagctttctc tcanatgcgc taaccttagc 360  
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<210> 3819  
 <211> 409  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-075-Q1-E1-H7  
  
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 aagaactcag ttaatggagc gctgggctag atgggagatc agcaattttg aataacttaat 180  
 gcagcttaac acgttggtg gccgtactta caatgacatt actcantatc ctgttttccc 240  
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<210> 3820  
 <211> 427  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations

<223> Clone ID: LIB22-075-Q1-E1-H8

<400> 3820

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aaaaggatgt ccggcgagga agcaggtgga gagaagccgt gtggaccctt ctaagcttat 240  
gattacttac gcctgcgacc acaatcacc tttcccttcc tctccgcta acaccaaacc 300  
ccaccaccgc tctccgtcc gtctcaaaa ncgcaagaga aagaggaaga atacnaagag 360  
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<210> 3821

<211> 451

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-076-Q1-E1-A1

<400> 3821

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cattgctcgc ttgaattacg aatcagatat cgccgatcgt cgtagatctg cgttgatact 180  
gtccggctga gtaaacaggg tgaacaaaa ccaaaaacag agaggggggt taaaaatcct 240  
gaagaaaatc gcatgaattt gtttgaagc ctgatttttt catcttcgat ttcgagccac 300  
ttcacgactt gtcttctcat ctttantccn tcatttctct cccagntnn nnnnnnnnnn 360  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnch tttggatcaa 420  
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<210> 3822

<211> 424

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-075-Q1-E1-C4

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agattccttc tctttccac atacctcaa accaccaat ctaccgttga ctctctctc 180  
ggctcgttct gtggcacgcg acatttctca tgcggattcg aagaaagagc ttcttaagga 240  
tccggatgcy ttgtggaagc gatacctcga ttggttttat cagcanaaag agcttggggt 300  
gtatctggga tnttactcgg gtcggattta ccgatgagtt tgtggctnan atggagccaa 360  
ggtttcaagc tgcgtttaag gctatggang atcntgaaaa agggctctata gccaaacct 420  
gatg 424

<210> 3823

<211> 499

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-076-Q1-E1-A5

<400> 3823

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ccgctcttcc attcaaactc cacattccct cttcacaaca acagcttcgt attcgctcat 120  
cttcttcgct ttctgatctt ggaaatcgca ggcattgttc gtctactcga ggatttcaat 180  
tttggctcatn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnaccgg cggttcgtat ttccgacggg aatctaata 300  
tcaaaaaccg gacgattcta accggtgtac cagataatgt catcacgacg tcagcatcgg 360  
aagctggacc ggtagaagga gtcttcgctc gagctgtatt taacaaggaa gagagtanan 420  
acatcgtaac gatcggtagc cttcgcaatt cncggtttan gtctgtntc cgggtttaag 480  
ctcctgggtg atggccnag 499

<210> 3824

<211> 385

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-071-Q1-E1-G10

<400> 3824

ctttaggggtt tataagaccc aaacaaanaa cattcatcag tctcaattca aaatcctcca 60  
tcaatggaga aatacgagaa gctcgaaaag gtcggtgaag gaacctangg aaaagtctac 120  
aaagcaatgg agaaaaccac cggaaaactc gtcgctctga agaaaactan gtcgaaatg 180  
gacgaanaag gtataccacc aacggctctc cgtgagatct ctcttctcca aatgctttct 240  
caatcaatct acatcgttca gtctcctctg cgtcgaanat gttattcaat cgagnagatt 300  
cgactgtttc ncantctccc aaatccaatc teganctcgt ttttgagtan ctcgacacng 360  
atntcaagaa atttatagat tncca 385

<210> 3825  
<211> 443  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-071-Q1-E1-G2

<400> 3825

cgtccgnaag cagttacatg atcaagtgat tgttgtgtct tggtangaaa gcctttggtg 60  
tcgggtgctg cgcttggtat ggaagggcag cttacggttt ataatacataa cggaggcccg 120  
tgttaccggt gtctttttcc cactcctcca cctacctcag cgtgccaaag atgttctgat 180  
agtggagttc ttggagtagt gccaggtggt attggttgtc tacaancgct agagacaatt 240  
aaactcgcaa gcctggtggg agaaccactc tctgaacgga tgcttctttt tgatgcttta 300  
tcagcaagga tgcgcattgt caagatcaga ggcaggtcat cacagtgcac cgtgtgtgga 360  
nacaattcat ctttcaataa gcanacnttt aaagattttg actaagaaga cttcactcaa 420  
tttccggttat ttgcgggcca ttg 443

<210> 3826  
<211> 449  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-071-Q1-E1-G4

<400> 3826

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tgaaaaggca gagacnnnnn nnnnnrnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
nnnnnnaggt tacaatgatg tttaatgaga tgggaatgtg tggaaacatg gatttcttct 180  
cttctggatc acttggtgaa gttgatttct gtcctgttcc acaagctgag cctgattcca 240  
ttgttgaaga tgactatact gatgatgaga ttgatgttga tgaattggag aggaggatgt 300  
gggagagaca aaatgcggn taaacgtctc aaggagcagg ataaaggat nnaacgtgtt 360  
gatgctgnta aacaggangc agtctcaaga gcanagctac gagggaacgn naatgtccan 420  
gagctcaagg aatnggatct tgaagttag 449

<210> 3827

<211> 425

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-071-Q1-E1-H1

<400> 3827

tgttttcacc aaccactcg acggagtctc caacgccttc ctctctattc tccactctca 60  
caccaccaac ttctgattcc agatctcaac gatgcaaagc tccgccgtan tctccctcnc 120  
tccgtcgctt cctctectaa aaccacgtcg gctctctctc cgccaccatc ccataaccac 180  
cgccgcttct tcaagcgatc taaacgtttc tccaaatgtt gtctctattc cttctttatc 240  
tcgtcgatct tggngtctcg cttcgtctga ttcgntctc cgtgcttggt ccggtgttcc 300  
ttctccgatn tctcantcct tangannna atcgtttnan gaancgccgn tantgcagtt 360  
cctgaaagtg ctgangaagg tgataanagt gggtaaattg angaagggtt ttgggaacgt 420  
ggngt 425

<210> 3828

<211> 412

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-071-Q1-E1-H10

<400> 3828

acgcgtgtan canaagtgcc aagttccctg gagtgccata cacattcttc tcgcagagac 60  
aaggctgcaa agtttctctg taccaagatg ctcatattcc agacaacttt gtccctaaga 120  
attcctctcg ctggagggaa gaactatnag cctcaaagat gttgggagga tatttttgat 180  
gctnttagca atgcanaaca cttgatcnac attactgggtt ggtctgttta cgccnagatt 240  
gcttttagtga gggactcgag gaggcctaag cctggaggtg atgtgaccat tggtgagcta 300  
ctcangaana acgctactgg aangtgtcan ggttcttntn cntgtttggg atgacagnac 360  
ttctgttgag gtgctgaana aaggatnngg ctcatgggct actcatgnat ga 412

<210> 3829

<211> 435

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-071-Q1-E1-H3

<400> 3829

caactcangt agtcagcggg ggaataaata aagtcaaaga tggttctaata gggacatgct 60  
cgaagaaaag cacaccaggt ggtctgatat atcctaataca gatcagcatg tctgctcagc 120  
cgagtgcaaa taaggtcggc agacctggga agaaaagcaa agtttttatg gaagctgctg 180  
ctaattggatt tgttgagaac cctctgagat ctgtttcagt atcaaagaca gcgaatacag 240  
atgccaaaat ggatcaggat tacaaacttc atatccaaag ttcaactaga cgttggtctg 300  
ctgcntcagt attggatata cggaagccct taattcaaaa ggccagaaca ngatatcaag 360  
canagattgg ngatgatgag attggcttta gaggcaggca gcggtgcagc aggatgcagc 420  
accccntgg atgaa 435

<210> 3830

<211> 493

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-071-Q1-E1-H4

<400> 3830

acgtttgccn ggcccgggtcc aaaattaacg ggtcgacgcn cgcgtccggt ttteggcata 60  
cttttcatgg agattaaccg tgggtggccat cccaacactt gttcttcttc taatcccagg 120  
gttgatctat ggcaaatacc ttgttcactt atcaaagaaa tcttttaaag aatacaccaa 180  
agcaaactcc atcgtggaac aggctctaag ctccatcaag acaattcttt cattcacagc 240  
cgaaactcaa ataatacaaga aatactcgga agtcttgga agacacaaaa agcttggggtt 300  
aaagcaagggt cttgccaaag gtttagccgt gggaagctca anggatttca ttcaccattt 360  
gggcttttct tgcttggtag ggaagcagat tgggtgatgca caaacaagaa accgggtgga 420  
cgcatttatg cagctgggat cnccttcgtc ntgggtggaa tctctctaag gacggnactg 480  
actgaaataa gga 493

<210> 3831

<211> 385

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-071-Q1-E1-H9

<400> 3831

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tcgggtgtttt gcacggccga cgaagcatct ctctgcgggc gctgcgacca ccaagtcac 120  
cacgctaana aactcgctc taaanactct cgtttcnctc tcctttatcc ttcttcttcn 180  
aanacctcct ctctctctg cgacatctgt caggataaaa aagctctgtt gttctgtcaa 240  
caaggataga gctattttat gcaaagattg cgattcatcg atncacgctg cgaacganca 300  
cacaagaaa cacgatnngt ttcttcntan aggggttaag ctctcnngca acatcgtctg 360  
tttacaacc tacttcggaa atcnt 385

<210> 3832

<211> 393

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-073-Q1-E1-A2



<400> 3832

gaaaagtacc caaatatatt ttcccagagt tcagtttttg ggaggtttcc atattttctg 60

ccgagcttag ttatatccgt ctatgtact gcggttctca tcgcttgctg gtggcttct 120

gaaactcttc atacacgttg tagaattgca caagggagac ttaatccaac agagctaaac 180

gatgatgaaa gtagaggagg aggacttgat gaacagaaaa taattaataa gccaaagtctc 240

ttgaggaatc gtccattgat ggctatcacc attgtttatt gtgttttttc cctccaagag 300

atagcataca atgagatatt ctactccgg gctgttaatg accgaaacta tggnggattg 360

agcttctcan cccaagaaat tngggggaaa ttt 393

<210> 3833

<211> 427

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-073-Q1-E1-B5

<400> 3833

ttttgaagta actatagtaa gattgatcag caagcaaat atgggtcaaa aggttgaagc 60

aaaaggaggg aaaggaggca accaatggga cgatggatcc gatcatgacg ccgtgaccaa 120

gattcaggtt gcagtaggcg gaatgggaat tcaatacatt cagttcgatt acgtcaagaa 180

cggacaaacc gaacaaactc ctcttcgtgg tatcaaaggc agtaccattc caactgatcc 240

gtttgtgatt aaccatcctg aggagcatct agtttctatt gaaatttggg ataaacctga 300

tgggtcttatt caagggtta ggttcatac caacaaaaag acttctcggt tcaatggnta 360

cnattgtggg acnaacann nnttcccaa nttttngnc acncgnaant tcatgggctt 420

tccaggg 427

<210> 3834

<211> 413

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-073-Q1-E1-C5

<400> 3834

gaggacacat tcattgctga cttagccgtt ggcttgtcca ctggacaaat caaaaccggt 60  
 gctccttgca gatecgagcg tcttgccaag tacaaccagc ttttgcgtat tgaggaggag 120  
 ttgggatcag aggcaattta cgctggagtc aacttccgca aacctgtgga accctactaa 180  
 atggagcttt tagaagcaaa gtggtcttct ttgtgacgag gagaanatga cctgagtttg 240  
 atcatttgct ttaattaaat aaaacgttct gtttttgttt cttctttgtt tggtttctta 300  
 nngtcttttg ttgaaccctt tttgggaaaa gttactcatt tttgtaaagg gaaacatgan 360  
 aatgcncngg cnttggctga gggnncgntg cccccctaag gtcaccccaa gtt 413

<210> 3835  
 <211> 383  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-073-Q1-E1-C8  
 <400> 3835

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 agttcaaact aatcaaaagt cccaatttct aacttcagtc taggcttttt ctctccatgg 120  
 atccttgatt ctgagatcaa ccaatcgaaa gaaacaaaaa tgggcttcaa cgttgttgtg 180  
 ttcttgagtt gtctgcttct acttctctct gttacttttg gtagcaacat ggaacgaacc 240  
 accttggtta tagacggctc acgtcgaatc gctgagaccg atgagaactt tatctgcgca 300  
 acgcttgatt ggtggccacc tgaaaaatgc aactatgatc aatgtccttg gggttacgca 360  
 tctctcaaca atttggaact tan 383

<210> 3836  
 <211> 507  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-073-Q1-E1-D1  
 <400> 3836

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 ccatctaaac aacactcctt caactgaagc cgcggcgaaa gaagggggaa agcgaaatct 120

attaagatta ggggtttata acgattatag ggagggacga aaatcaagna agacgagcta 180  
 gaaggaagct gcgatttttc tggaagataa acaatggcac aagattcaga gaagagattc 240  
 caccaaatac tggataaact ctttacccca tcgaaatctc agcttccttc ttcctccacc 300  
 agttcttctg tagagcaaca atcaagagggc aagaagcgtc aaaatccttc atctgcgtta 360  
 gcattgggtg agccaaaaga ttgtattaac taccattgat aggtcctcan ncntttgaag 420  
 gggtcccgct ggaaaaanncc ccntcngggc tttttnaagg ccttggggaan nanggggnatt 480  
 nnttctnngg agggtttgct actttca 507

<210> 3837  
 <211> 366  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-073-Q1-E1-D7  
 <400> 3837

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 aagattcctc ttttttcggt cctctgattg ggcaaaagac tagctcggtc gtgttttgaa 120  
 caagagatac atgttttgaa aaattcctcg caaaagaaga gaaagaaaga ctcaaacttt 180  
 tgtttgaatt tgataccatt ttttatatat ataccaaaag tccaagactg gtttcatttt 240  
 tgggtttggt ctgaaacctc tcttcgtgtt gtttgttcat ggtatgtctt aattagggta 300  
 aaaaaatact tgattgtttt ctctcaatca tcangcataa gagtacgcaa taaaccggnt 360  
 aaatcc 366

<210> 3838  
 <211> 480  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-073-Q1-E1-E3  
 <400> 3838

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 tgtantttgc ttcttttaggg agaaagaaag cacaaggggc aaaatcgga agattatcat 120

ggccgacggt agtactagtt cttcggagtc cactaccgcc tgcgctggaa gcggcacaag 180  
aagagagatt atgctgttcg gagtcagggg tgtgcttgac ccgatgagaa agtgcgtag 240  
tttgaacaat ctgtctgact atgaacagac ggccggagact ccaaagatcg acggcgaaga 300  
tagagatgaa caagatatga aaaaaacccc ggccgggttac gcctcggcgg atgaagctct 360  
tcccatgtct tcttctaacg gnaaaatcga naggaacca ngagtttcat gggagngaana 420  
nnagaacaca aaacngntnn ctnccttggg gnnncaaaaa ttccgtnaag gggaaattgg 480

<210> 3839  
<211> 430  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-071-Q1-E1-F8

<400> 3839

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ccccatatct gaaagctgaa gctaagaatc tggacgttcg tgtttaaacc gacgacgtat 120  
ttgaaattgg ctttgaagga aaggtgaaat taatggcgga atcgtcgtcg ccgtcgccta 180  
ctgaagagat cgttcgggtg attaagcggt taagcgctta cgttgctttc aaaatgtcaa 240  
gccttttctc cactacatcg attcgaaatc tggattcaag atcaattggg gcgattgcgg 300  
ggcttgcgat tgcngtgata tntacgtgga ngggcgataa gaacgcccgg agaagcaacg 360  
tntnnagaag gcagnccaag cgtatgattc acantgctga aacgtctant gctgctgntg 420  
cttgctctc 430

<210> 3840  
<211> 394  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-071-Q1-E1-A12

<400> 3840

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atattctcca catttgccga ggccaatagg ggctttgggt ggggttgggg tggacactcc 120

aacaattcaa gtggttcagg ttcaaactcg aggtccggat ggggttggg ttgggggtcaa 180  
ggctccaact attcaagtgg ttcagcttca accccannnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nccccaaaca tacacacanc 300  
tcaaggtctg ngcggtcgg gttggggcat ggggccctaa caacaattac aagctcggga 360  
tttngcggct cgggttcagg ctgggggata ttgn 394

<210> 3841  
<211> 418  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-071-Q1-E1-A3

<400> 3841

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gtggtcctag cacctccgca caaaatccta ccggagctcc ggccaacaaa gatcgcaatt 120  
tggcctctgc tgaacagttg gtactcgatc tcagcaatcc tgaactcaga gaaaatgctc 180  
ttctcgagct ttccaagaaa agagaattgt ttcaggatct ggcgcctttg ttgtggaact 240  
cttttggtac cattgctgcc ttgttacagg aagattgtat caatctactc tgttcttgca 300  
cctccaaatc tgactcctgc tcagtccaac cgtgtttgca actcgctcgc tcttcttcag 360  
tggcgtagca tctcattctg acacgagaat gtnattctca aggtcataa tccngttg 418

<210> 3842  
<211> 431  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-071-Q1-E1-A8

<400> 3842

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ggcttaagta tctcgacatc tcacaatgtg tcagcctgag ttgtcttcca gaggaaatag 180  
gaaagctaaa gaagcttgag aagatcgaca tgagagaatg ttgcttctcg gatagaccga 240

gctctgctgt ttactgaag tctctgcgcc atgtaatctg cgataccgac gttgcattta 300  
 tgtgggaaga agttgagaag gctgttccag ggttaaagat cgaaagctgc tgagaaatgc 360  
 ttcagcctaa actgggcttg nccaattana gtgtaaactc antgtttann agtctggtan 420  
 agttaaattg c 431

<210> 3843  
 <211> 366  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-071-Q1-E1-A9  
 <400> 3843

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 cctcttgatc atcgtcttct tctacaaaa ttgttgcgcg acaatggaga aatacaacag 120  
 tttatcagat tttctcaagg agttctacat ccctacgtac gtcctctcgg cggaacaga 180  
 agaggaggag gaggaggaga gtcgtcctac acctgcganc cccgtccttg tcttcatcaa 240  
 ctccaaaagc ggtgggtcag ttgggtgggc gaactcattc tcacctaccg atctcttctc 300  
 aatcacaatc aggtctttga tcncgaccan gganactcca ggataaagtg ctccgcagga 360  
 atctan 366

<210> 3844  
 <211> 429  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-071-Q1-E1-B3  
 <400> 3844

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 tgagatccat actcgagatg tgtttttgct caaaaattag cttgttcctg caattccata 180  
 ggttcacaa gatccaaatg ggaagttgtc cttgtccaat tccgattggt ggaagggtaa 240  
 cgaggagctt tgagacttcc aaacctgtt tcatacttgt gatccgggaa gcttgaagcg 300

tggtttttgaa aggagaaaga tcccaagacc ttagaagcaa atgggcagag gaaaagcang 360  
atggagaatt gattcagcct cgtcgcagtg aggacagaga gcaagcggat ttataccacg 420  
cagcctcag 429

<210> 3845  
<211> 427  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-071-Q1-E1-B6  
<400> 3845

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gaaactctat agttggtctt cctggtgtag atggtctttc aacagaacag aggaagaggc 120  
ttactatagc agttgaattg gtagctaata catcaataat cttcatggac gagccaacat 180  
ctggtcttga tgcaagagct gctgccattg ttatgcgtac tgttaggaat actgttgata 240  
caggaagaac tgttgtttgt acaattcacc aacctagcat cgacattttc gaatccttcg 300  
atgagttgct gttgatgaaa cgaggaggac aagttatata tgctggaaca ctaggacatc 360  
actcacaaaa actcgttgaa tactttgagg ctattgaang gggttccaaa gatcaaggac 420  
ggataca 427

<210> 3846  
<211> 400  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-071-Q1-E1-B9  
<400> 3846

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ggcgcaagtt atcggatacc gtccatatcc accaaaaacc aanggctccg atcaaatctt 180  
cgacgcttca aaaaaattcg aaggctcatc gaatctcgtc cgcctccggt accacatggg 240  
tccagtctta accaacaaca tcaccgttca cccaatctgg tacggcacgt ggcaaaaatc 300

ccagaagaaa atcanccgtg agttcattaa ctcaatctca gccgttggat ctaaacaccc 360  
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<210> 3847  
 <211> 432  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-071-Q1-E1-C5  
 <400> 3847

gtaccaagtc atgaaattcc cgggtccgac ccacgcgtcc gnccaaaaac tctgtcgaat 60  
 tcgatcggtta catcgagcgc aaagctttcg acaatacaaa agaaggtggt aaagggctca 120  
 tcgatgctaa aatcaccgag atccctcgaa ttttccacgt ccctcaagat accttaccag 180  
 acaagaaacg ctctgtttca gacctagaga tccctaccat cgactttgca agcgtcaacg 240  
 tggacacacc ctcacgtgaa gccatcgtgg agaaagtcan atatgcggtg gagaattggg 300  
 gattcttcca ggtgattaat catgnggttc ctttaaangt tcttgaagag attaaagatg 360  
 gggttcngta ggtttcacga ggaagaagat nctgaggtca aaganatcat actantcgct 420  
 tgatttcacc aa 432

<210> 3848  
 <211> 419  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-071-Q1-E1-C8  
 <400> 3848

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 gtcttgcggt cacaaagttg tctcactctc aatggactga ttacttctc tctgttccca 120  
 tcgatgattc ggagtttagac gctattacaa gagagattga cataatcaag cctgaagtta 180  
 ggaagctcct atcttccaaa ggtgatgatg agacatcaaa gaggaaagtg cttttgatcc 240  
 aatcgcttct tagccttggc ctgcatttc attttgaana tgaagntcaa agatanatta 300  
 gaagatgctt ttcgaangat agatgatnta actggtgatg aanatgactt gtcganaanc 360



tgcacatcatgt tccgcttttc aggaanatac gggcacagnt ttacaatcaa ggtgtantt 419

<210> 3849  
<211> 389  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-071-Q1-E1-C9  
  
<400> 3849

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atcattggag gtggtgtagc cggcggttac gcggcgagag agtttagtaa tcagggcctg 120  
aagcctggtg aactcgcaat catttccaag gaaccagtgc ctccttttga ncgctctgaa 180  
ctanccaagg tatatattga cctcgaagtc aatccgaccc ttgcaaatat ctatgtttgt 240  
gctggaactg gagaagcgan gcagtaccct aactggtaca aagagaaagg gattgatcna 300  
attgtgggca cagagatagt caaagcagat cttgcttcan acacacttgt taantgatga 360  
ctggcanaat ttacaaagta ccaancttt 389

<210> 3850  
<211> 439  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-071-Q1-E1-F1  
  
<400> 3850

acgcgtccgt ctaaatctct aatcttttga aaccctaaat caaagttttg ttttttttta 60  
tcaactgggg aagaagaaag gtgtaacctt tatataacca tggattccgg tgacgcgaca 120  
tctttgcttt tgacgaaaat tcgaagcttg gagccagatt atgctcctaa gattattggg 180  
tatttgcttt tacatgattt tgggtataga gacttgatgc atctggctcg tggacctgaa 240  
tcgattttgc agtcgactat ttcgaaagtg aagagtctct tggggatttt ctccaacaac 300  
tcgccttctt ctactccgac gtctccttct ccgttgaatc ctatctgtcg tcctcctctt 360  
aacggaagan gaagctctca ctccaatggg tttatggatt tccgtagaaa ctctccgctn 420  
tctccttctt ctacctctc 439

<210> 3851  
 <211> 381  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-071-Q1-E1-F10

<400> 3851

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acgcgtccgg tacaacccaa cacactaccg tgaacctaaa ttttacacaa agcttttcaa 60
agaatgccat atgaatgacg aagatgggaa ttcgtatgaa ctctctttgg ttagctgtaa 120
atgcattgga gcttatgtga gaaacaaaaa gaaccagaac cagatatgct ggctttggca 180
gaaagtcagt tcggataatg ataggggctt ccaacgcttc ttggacaatg tccagtataa 240
gtctagtggg atcttacgct atgagcgtgt ctttggagaa gggtttgta gcacaggggg 300
actcgagaca acaaaggaat tcgtggatat gctggatctg aaacctggcc aaaaagttct 360
agacnttggg tgcggaatag g 381
```

<210> 3852  
 <211> 487  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-071-Q1-E1-F4

<400> 3852

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attttgcccn ggcccgtcc aaaataaacg ggtcnacn cn cgcggtccggg aagaatggct 60
acatgtcctc ctttcgattt ctcgacaaa tattacgatg gtgacggcgg atgccagagg 120
cagagcagct tcttcggagg cacgacggtg ctcgatcaag gcgttggtta cgccgtgatt 180
cttggttttg gtgctttctt tgccgtcttc acatcttttt tggatatggtt agaaaaacga 240
tatgtgggag ctcgatcac atcggaatgg ttcaatacag cgggaagaaa cgtaagaca 300
ggacttattg caagtgtcat tgtatcacag tggacatggg ctgacgacct actgcaaagt 360
tcaaacgtag catggcagta tggggtagt ggaccgtttt ggtacgcan gtggagccac 420
catacagggtg ctgttggttg gtgtgattgc gantgagata aaaagaaaag gctcctaattg 480
ctcacac 487
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<210> 3853  
 <211> 485  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-071-Q1-E1-F6

<400> 3853

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acntcgcccg ggaccgtaca agtcannaaa ttcccgggtc cgaccacgc gtccgngacc 60
gcttccttct ttctctgtca catacgaatc ggggaaattt ggatcccgat cgtgatcttt 120
agtttggtga atttgagctg gaattggagc ttaaaggatc ggttttttga ctgatctaata 180
tgttttgagg atcgggtcttt cataaagttg ttgtctttga agcttttttg actggtgagg 240
acgaaaaagt tgtgattttg ggaattaggg ttgttttggt tcgaattcgc catggatacg 300
agcangagag ctgtggaatc gtattggagg tcgcggatga tagatgcggt tacgtctgat 360
gaggacaaag ttgcgcctgt gtacaaattg ggaagagatc tgtgacctn ttcgncttcn 420
cangtcagca tcgtcaagga attttctgaa ntcatttttg aaacgtcttg ataanaaaaa 480
gcccc 485
```

<210> 3854  
 <211> 487  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-071-Q1-E1-F7

<400> 3854

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cttttaccg nccggtaccg gtccanaaat tcccgggtcg acccagcgt ccgngcttat 60
gctctaaaag cgattgtca gttcatcaa cctgcacttg aggctgtatt cgacgatact 120
cctaaagagt ttgattcttt tgaagatggt cttaagatct atgaagaagg aatcgatcta 180
ccaaaccaag ctttgattga tagtatcgtt aagaatatac cgcttgagat gttaaaggag 240
atattcagaa cagatggcca gaaattcctt aagtttccag tgccctcangt catcaaagag 300
gacaaaactg catggagaac agatgaggaa ttgctanga gaaatgttgg ctggactaaa 360
ccctgttggt attcaacttc ttaangagtt tcctccaaag agtangcttg acagtgaatc 420
```

atacggtaac cagaacagta caatcactaa gaagccacat nggagnanaa tttgggatgg 480  
actcact 487

<210> 3855  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-H7  
  
<400> 3855

atattaanca ctttttcttt tagaaaaaaa aacanatatg gccgttgant cacctcntca 60  
atctcggntg gtttcagcga cgacttctga gaaagatgtg aaagctctca agttcattga 120  
agaaatgant cggaaccctg actcggttca agagaagggtt cttggataga tactgactcg 180  
taactctaac accgaatatt tgaaacggtt cgatcttgat ggtgtcgttg atcggnaaac 240  
gttcangagc aaagttccgg tggntacgta cgaagatttg aagccggaga ttcaacgtat 300  
atccaacggg tgattgttct ccgatcttgt cttctcacc catcaccgag tttctcacia 360  
gctcaggaac atctgctggg tganaagaaa ctaatgccaa caattgaaga aaacttatt 419

<210> 3856  
<211> 184  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-F1  
  
<400> 3856

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nnnnnnnnnn nnnnnnnnnn nncaagaata ttttagatgc aaattctttt tccatagatg 120  
ttttgtgtt ttcttcagtc aaatatatgg agaaatttca tactaaaaaa aaaaaaaaaa 180  
aagg 184

<210> 3857  
<211> 409  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-F3

<400> 3857

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acctctgaac agtgggaaca gattcgacag ctgatgagat ctaaaagctt attacccttt 120  
tttgatagtg catatcaggg ttttgctagt ggtanccttg acacagatgc acaatctgtc 180  
cgtacatttg ttgctgatgg cggatgaatgc ttgatagctc aaagttacgc caaaaatatg 240  
ggactttatg gggancgtgt tggatgccctt ancattgtct gcaagtcaag cagatgtggc 300  
tagtaagggt gagaaccaag tgaagcntgt tgtgcggccc atgtattcga gccccctat 360  
tcatggaggc atcaattgtt gccaacattc taaaaaacca gttgntatg 409

<210> 3858  
<211> 421  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-F4

<400> 3858

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atccctccgc cggagcttga caacgactca ctggcgctcat cgccgagatc ggagtacgat 120  
agtcagccac gcgtacgggt catgtgtact tttggaggaa ggatcttgcc acgtccgccg 180  
gataatcagc tctgttacgt cggcggcgat aatcgcatgg tcgctgttca tcgtcacact 240  
actttcgctt ctctccttag taaacttgct aaactctctg gtaaaagcaa cataagcgtg 300  
aagtaccagc taccaaacga agatcttgac gcgttgattt ccgtatcaac ggacgaagat 360  
gtagagaaca tgatggacga atacgaacgc gtcgcacaag aatccaaaac caagcggnc 420  
c 421

<210> 3859  
<211> 134  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-F5

<400> 3859

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aagctttaaa aagagtatgt tcaactgnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
nnnnnnnnnn nngg 134

<210> 3860

<211> 418

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-070-Q1-E1-F6

<400> 3860

ccacaaaaag gctggtgcta tgaatgcact ggtgagagtt tcagcagttc ttaccaatgg 60  
acctttcatc ttgaatcttg attgtgatca ttacataaat aacagcaaag ccttaagaga 120  
agcaatgtgc ttcctgatgg acccaaacct cggaagcaa gtttgttatg ttcagttccc 180  
acaaagattt gatggtatcg ataagaacga tagatatgct aatcgtaata ccgtgttctt 240  
tgatattaac ttgagagggt tagatgggat tcaaggacct gtatatgtcg gaactggatg 300  
tgttttcaac agaacagcat tatacgggta tgaacctcca ataaaagtaa aacacaagaa 360  
gccaaagtctt ttatctaagc tctgtggtgg atcaagaaag aagaattcca aagctaag 418

<210> 3861

<211> 403

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-070-Q1-E1-F7

<400> 3861

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cctgnagcga tcaatttctt tttcatcata tcgctgactc tcgtcttcgt cgtctttgat 120  
cgtatcgagg aattgggttt agttcgattc gatcatcagc tatctcaatt tttctgggga 180  
ttgttctaaa ggtttctagt gacttgttta aagtgggttg tantggataa tgccttctct 240  
catctcacag naatggnatg agangactag tgggntcttt tcttcatcag gaacgaanct 300

tatggaagca gggcagactg ctgggtagtt ttgtcnggga agttgctaag gatgcgaaag 360  
tgaatgttgc aaatgttgca caaagattgg gtcgntgttt aaa 403

<210> 3862  
<211> 419  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-F8  
  
<400> 3862

gagattacaa gggaaagaga caactccaat tcaaagctct gattttttcc accaatcccc 60  
attttttccc tttaacaatt cttaaagctag ttttatactt ttctttctcc ttccatttgg 120  
gttaagagaa gccatggata ccgagtttct ccgaacccta gatcgtcaga ttcttttggg 180  
tgtcttcggt gctttcgtcg ccgttggtgc tgggtgctgct tattttctta catcctccaa 240  
gaaacgcaga gtgtgtttgg atccagagaa tttcaaggag ttcaagcttg ttaagagaca 300  
tcaagcttag tcacaatgtg gccaaagttcg tttttgaact cccaacttct acttctgtgt 360  
tgggtcttcc cattggacaa cacatcagtt gcaagggaaa ggatgggtcaa nggagaaga 419

<210> 3863  
<211> 406  
<212> DNA  
<213> Arabidopsis thaliana  
  
<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-G10  
  
<400> 3863

tgggtcagga ccgantcata ggaggttatg ggtaaagaa cgaaccacgg actggtggga 60  
cagagtaagc cggcctgatt ttccagaana cgagtttcgg cgagagttcc gtatgagcaa 120  
atcgacgttt aacctaatat gcgaggagct agatacgacg gtgacgaaga aaaacacgat 180  
gttaatagac gcgattccag ctccaaaacg cgtaggcggt tgcgtttggc gtttggcgac 240  
aggagctccg cttcgccacg tgtcggagcg tttcgggtctg ggaatctcaa cttgccacaa 300  
actagtcatc gaagtctgcc gcgcgatcta cgacgttctc atgcccaggt atctccnctg 360  
gccgtcggat tcagagnata aactcaacga tagccaaant ccgaat 406

<210> 3864  
 <211> 426  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-G2

<400> 3864

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tgtgataaaa ggntccacaa anaatgcgtc gagtgtccac ttgagantag ttatcctacc 120
cacaccaaac attctcccca actcntctaa tctaaatata natttgacca ttgcatctac 180
tgtagaaaaa gagcaaccta tatgatttaa ttttgtgtc tttgcgacag ttatatgcat 240
gtcctttgtg ctcaagtcaa aaataccctt ttttatagac caagccaaaa aagacatgac 300
catactctca cccctttccc tagacaagct tccttaacct gcaatatttg tggtttgata 360
aanaaactcc atttcaccta cgtttgcct aaatgcgaat tcgtaacca aaagtgattg 420
naatta 426

```

<210> 3865  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-070-Q1-E1-G7

<400> 3865

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attactctaa aatacccaaa atggaatctc atggaaaaac ccatcagaaa gagcacgata 120
atgatctctc tccgaaaccc ataacgttgt caaagtattc gaaacgggtc gagttaaaga 180
ctctgcttga tcggagcgac cgcggcgcag gattggctgg gaaaagggtt gtgattggtg 240
gttgggttaa gtctgctaga gcggttaaga aaaattctcc tcctcctcct ctgcctgtag 300
ttgccgcccc ttgccgctcg agtgggtggg atnaagctca tacgacgggc aacattaagt 360
gcacgggaga tatccaatch aaaatgaata atttcaagag attttccn 408

```

<210> 3866



<211> 413  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-G8

<400> 3866

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agcaatctgg gcatgacaaa gtccatgaat ttctttcaga acatcattaa acctttcaaa 120  
cgcagctcca atcgaggtct tgaagatgat attgagcgaa ttgctgctat ggagcaaaaa 180  
gttttcccat ttcaagtttt agtttccgct accaaagatt ttcacccgac ccataaactc 240  
ggatgaaggtg gtttcggtcc cgtcttcaan ggaagattac ctgacgggag agacatagca 300  
gtgaagaagc tatctcaggt ttcaangcaa ggcaaaaacg agtttgtgaa cgangctaag 360  
ttgttggtta aagttcagca tgcgaatgtt gttaatcctt ggggttaatg tac 413

<210> 3867  
<211> 469  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-H10

<400> 3867

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gactgttgct canacaattc aggaagtttt gtgggacaat cctcccatat cagagaacca 120  
agcaacatgc gctttatattt actctatttc ttcaactcag cctggcttag ctgggataaa 180  
cctcggnaaa tttctgatca aacgagtgat tacgttggtg aaaaaagaca tgccacatgt 240  
ttctacattt gcaacactta gccccattcc tggattcatg caatggntcc tctcgaagtt 300  
atcatctcaa gtcaagattt gctgaagatg agcgtggtac acagagcaat tcgccttcat 360  
ctacgttttag tgagaaagta ttactaccag aagaggaaca tgccctcatg actctatcag 420  
atgaatcttc atccggtagc aacggtatgg aagttctgtt gaatttgct 469

<210> 3868  
<211> 465  
<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-070-Q1-E1-H2

<400> 3868

cttngccggc cagtaccaa caagcnttgg nccgncgacg cntccnnatg gccatcttgg 60  
ctcacttcct ctctccggcg catccaacgc caactccttc gcctccgtca ccggtttttag 120  
cttcttcaat gggaaaaaca agtgcgttag atangctttg tggccaagcg tacggagcaa 180  
agaagtacgg aatgttagga atacaaatgc aaaaagctat gtttgttctt aactaactt 240  
ctantcctct ctccatcatt tgggctaaca cagagcanct tctcgtcttc tttggacaaa 300  
acaaatccat tgctacactc gctggctcct acgcaaaatt catgatccca agcatcttcg 360  
cctacgggtct tcttcaatgc tttaacaggt tcttgcaggc ccaaaacaat gtgtttcctg 420  
tggttttctg ctccggagta acaacttctc canatgtcct ccttt 465

<210> 3869

<211> 396

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-070-Q1-E1-H4

<400> 3869

gttattgctt gttcttggac tacttgtttg ttcgattgcg ttcgcggttag tagccataat 60  
caaagctaga tcattgaaaa aggcgagtga gtcacgggct tggagggttaa cagctttcca 120  
gagactagac ttcacgtgtg acgatgtcct ggattctctc aaagaagaca acattatagg 180  
caaaggagga gctgggtattg tctataaagg cgtaatgcct aatgggtgatc tagtcgcggt 240  
taaaagactc gctgcaatgt ctctgtggatc ttcccatgat cacggcttca acgcagagat 300  
tcaaacctta ggaaggataa gacacaagac acatagtgag gcttctcgga ttttgcctaa 360  
accacnaaga cgaatctact tgtcnaagaa gtacat 396

<210> 3870

<211> 437

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-E8

<400> 3870

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caacaacctg ttgggtaaat tcgagctttc tgggtatccct ccagcaccaa gaggtgttcc 120  
tcaaataact gtctgttttg acattgatgc aaacgggtatc ctcaacgtct cggctgagga 180  
caagacaacg gggcagaaga acaagatcac aatcaccanc gacaagggaa gattgtcaaa 240  
ggacgagatt gagaaaatgg ttcaagaggc agagaagtac aagtcggagg atgaggagca 300  
caagaagaag gtggacgcc aagaatgctct tgagaattac gcatacaaca tgaggaacac 360  
aatccgtgat gagaagattg gcgagaagct tgctggagat gacaagaaga agattgaaga 420  
ctcaattgaa gcaacca 437

<210> 3871  
<211> 406  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-H5

<400> 3871

acgcgtccga aaaacctctt cttcttcttc tctctctcta tccattttca ctaattagcg 60  
attaaaaagg attctttttg tgtgtattaa ttatcgctta aatcttaaata aattctccta 120  
atcgtctctg caggttggtg atggtgttta gttgtcaatt ctacatctcg aggaaatcca 180  
gaaacagctc actgatctat cgaaacagtt ttttttcttt ttacagagtc aatagaacaa 240  
gaaccagata acagagatag tgacaaacca tccgtgaccn nnnnnnnnnn nnnnnnnnnn 300  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nntaagacat tgcttaaata 360  
ntcaaaaactc cntttggctt taaatatgtc ccttccaaat natect 406

<210> 3872  
<211> 462  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-070-Q1-E1-H6

<400> 3872

gggaccaaac aanaattggc nggncgaccc acgcgctccg tggcaaaacc ctaatcgact 60  
tcgatttanc tcttttattg gaaccatgta ngcttcttgg agttagtatt ggtgtgatct 120  
gtaatcttgt ttttccgaac tggttgatta cgagtctctt cgctgtgttt cttgcgtggt 180  
cnacgttgaa nacttttggg aatggacttt attattggng attggaatcg gagatggtga 240  
agattanaga atcgaatana attgaagaag atgatgaaga agataagatt gagagtctaa 300  
agttgcctcn cntggnggat tatcagagac caaanggtt tccatggatt angcttggag 360  
ttttggtcac tanttggctt tcttacttcg cagtttatct tcttcgagga aacanntatg 420  
gcaatggaat cataacgatc gaaccatgtn ggaacgccca ac 462

<210> 3873

<211> 460

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-069-Q1-E1-B10

<400> 3873

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aaaaaaaggc aaaaccctag atccaagatc agacctaatc taatcgaaac tcatagctga 180  
aaaatgaaga gagatcatca ccaattccaa ggtcgattgt ccaaccacgg gacttcttct 240  
tcatcatcat caatctctaa agataagatg atgatggtga aaaaagaaga agacggtgga 300  
ggtaacatgg acgacgagct tctcgctgtt ttaggttaca aagttaggtc atcgagatg 360  
gcgagaggtg ctttgaaact cgaacaatta gagacgatga tgagtaatgt tcaagaagat 420  
ggtttatctc atctcgcgac ggatactgtt caattatatc 460

<210> 3874

<211> 588

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-069-Q1-E1-B3

<400> 3874

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nnnnnnnnnn nntttttttt ttttgtttat ttgttcttcc tccaaaactc cttttttttc 180  
tcaccattat ctcatgaacg tgagtggagg ctctctgagt agagagagcc tacccttgaa 240  
aataacctag ggattttctc aattttcaag ctttacctat tcaaaagaat cgtccttttt 300  
tcctatttct gactttgagc tatgatgatg gtccattcga tgagcagaga tatgatgaac 360  
agagagtcgc cggataaagg gttagattcc ggcaagtatg tgaggtacac gccggagcaa 420  
gtggagtcnc anaattaacg atgccnagca antcctaaga agacacaact catactgaat 480  
gtccgantcc cccaacatc gagcctaagc agttaaantt gggttcaaaa acgcaanatg 540  
tcgtganaaa gcanaggaaa agaaaccngc tccgtcctca aacagtga 588

<210> 3875

<211> 588

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-069-Q1-E1-B6

<400> 3875

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cgtcaacaac aaatttatcg acaccgcttt cgctatagac aacacttacc ttctcttctc 180  
cgctacctt gtcttctcta tgcagcttgg cttecgctatg ctctgtgccg gttccgtgag 240  
agccaagaat actatgaaca tcatgcttac caacgtcctt gacgtgcag ccggtggtct 300  
cttctattat ctgtttggct acgcctttgc ctttggatct ccgtccaatg gtttcacgg 360  
taaactactac tttggtctca aagacatccc cacggcctct gctgactatc aattccacaa 420  
tggccttgat cctgcggtgg atacaagtgg gtcgattgct gaacggacac anttcgtggc 480  
ttaactaatc cnagtcctcc ttcctaaacc ggggtttggg taaccgggt ccgtccnctc 540  
aatggggttt cnggggtcaaa ttttaatngg atggggccaa acccgtt 588

<210> 3876  
 <211> 454  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-069-Q1-E1-D12  
  
 <400> 3876

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tccgttcac tccggnta tctgccgcca aattagtcaa ccgaaacccc aggttcctt 120
ctcgntcac ccgcgcgtca cgccgtcca tgtagctacc tcctcggccg cgtcgccgag 180
tatgcgacct cttcacggc aagctctgct gcgccatcct ctgctcctgc taaggatgag 240
gggaaaaaga cctatgatta cgggtggcaaa ggtgcgatgg ggcgtgtttg tcaggtcatc 300
ggtgccattg tcgatgtgag attcgaggat caggaagga ttgcctccga tcatgacatc 360
tccttgaggt tcaaggatta tcccangaag gctggtgctt gaagggtgtc tcatcatttg 420
ggtcaaaatg tcgttaggac cattngctat ggat 454
  
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<210> 3877  
 <211> 626  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-069-Q1-E1-D3  
  
 <400> 3877

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ctgcaacggc attgcccttc acagccccg ttttatccct tactgcgcaa ctttctttgt 180
gtttactgac tatatgagag ctgcaatgag aatctcggct ttgtctgaag ctggtgttat 240
atacgttatg acccatgact ccattggtct tggagaagat ggaccaaccc accaaccat 300
cgaacactta tccagtttcc gtgccatgcc caatattatg atgttccgtc cagctgatgg 360
gaacgaaaca gccggtgcat acaaaatcgc tgtcacaaaa cgtaagacac cttctgtctt 420
agccttatct atcgnagctg ctcaatcaga catctattga gacgtcaaaa aggtggatac 480
  
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accanttttct gacaactcaa ccggttaaca aaacccgatg ntaattgttg atnnggaact 540  
 gggatttaga gcctnnaana ttgacctgct ccaagcctgc canaagaaaa ttttaagggg 600  
 aaacaaaggg gcaaaaaatt ttttan 626

<210> 3878  
 <211> 611  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-069-Q1-E1-D5  
 <400> 3878

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 ctgctgacag aaaagattcg attgaacaag tgaagaagct atacgaactc ttccgcaaga 180  
 ctgactgcac aatgttggaa atcaatcccc ttgcggagac atcaactaat caattggtag 240  
 ctgctgatgc caaattgaac ttcgatgata atgctgcggt ccgacaaaaa gaggttttctg 300  
 ccatgcgtga tccaacacag gaggatccac gagaggtggc tgctgctaaa gttgacctga 360  
 actacatcgg tttagatgga gagattggtt gcatggtgaa tgggtgctgga ttggccatgg 420  
 caaccatgga catcataatt cacgtggaca ccgcaanttc tgacttggtg gaaatgcttc 480  
 tgagcaccaa gtggtggaan cgtttaagat actgacatcc ggacgagtaa agtgaaaacc 540  
 aatccttggg gaacatattt ggtngggana aatgaaatgt naatgttaat tgccaattgg 600  
 aaaccctnaa c 611

<210> 3879  
 <211> 433  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-069-Q1-E1-D9  
 <400> 3879

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gcctcagaac tgcatagcac caaggcctga agaagatggt ggagtcatgg ttcaaggttt 180  
gccagatatg tcagacacgc agagcaagtc tgtactagcc ttccctacga ttacttcaca 240  
acctggtctc cagatgtcta tgtatcccat aactctcaag tttgaggagg ttgtgtacaa 300  
ggttaagata gagcagacaa gtcagtgtat gggatcatgg aaaagcaaag agaagacgat 360  
tttgaatggg gataacggga atggtttgtc cccggagagt ttctagccat gttaggtcca 420  
tcaggcagtt ggc 433

<210> 3880  
<211> 582  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-069-Q1-E1-E4

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ggaactgttg tggaggggaac aatacaaaaag ctatttgaag gtcaccacat gaattacatt 180  
gagtgcatta atgtagatta caaatctaca cggaagaggt catttttatga cctccagctt 240  
gatgttaaag gctgcaaaga tgtatatgct tcttttgaca agtatgttga agttgaacgc 300  
cttgaaggag acaacaaata ccatgcagaa ggacatgatt tgcaggatgc aaaaaaagg 360  
gttctattca tagactttcc accaagttct tcaacttcag ctcaagaggt ttgaatacga 420  
ttntgagga ccatgggant atgtcggat agttcctccc caactggatn tgcacagana 480  
anatggaaat attatcccct gatgcanaca gnaagtgtcc gcaatctcca aaacctccan 540  
antgtcctgg gtcnaaattg ggaggaattc cattggangg gc 582

<210> 3881  
<211> 608  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-069-Q1-E1-E8

<400> 3881



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accttgggag ttatataata tatacttggt caactcttct tcgaacgctg tccaacttct 180  
tcctctggtt cgatcatcga gatctcgagg ttatttggcc gcaatgcaga agcgaatagc 240  
cttgctggtt ccagaagagg tactagagca tgtgttctcg tttattcagc tggataagga 300  
taggaactca gtctctctgg tgtgcaagtc atggtacgag atcgaagcgg tgggtgcagga 360  
ggaaagtctt catcggaac tgctacgccg tgagtccagc gacggtgatt aggaggttcc 420  
cgaaagtgag atccgtgact aagaaaccac ttgcgactta attggtactg acggttgggg 480  
aaggttacgt gtanccangg ntttnnggca atgtcctccg tcctaaaacn ttggcttgaa 540  
anagaanaag gctgaanaag gattggtggt caaccgnacn aattgccttg gggcccaaaa 600  
nccaaatt 608

<210> 3882  
<211> 470  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-069-Q1-E1-E9  
<400> 3882

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caagatggcc gggaacgatt gggtaaacag ttacttaaga ggcgattctc gacgtcggtc 180  
agggctttga cgatgctcgc tcttctccat cacttcttct tagggagaga ggtcgattca 240  
ctcccagccg ttactttggt gaggaagtta tcaactggta cgatgaagac tgatcttcat 300  
agattctggg ttaaggctgt tgctacgaag agtcacaaag agaagaacac gaagttagag 360  
aatatgtggt gganggattt gggatcctgc tccgtcaaaa agaaacaagc atgagggaaa 420  
aaagnaagca caagaggctg gctaagccca aggcttgaac ntttagaaaa 470

<210> 3883  
<211> 612  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-069-Q1-E1-F1

<400> 3883

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agattagggg gaggggggat gactgcaaaa gtcaaagctg caagtcaatg cagcttatgc 180  
tgggattcct gtcatacata ccagtgggta ttcagctgag aacatagata aagtcctcag 240  
aggactacgt gttggaacct tgtttcatca agatgctcgt ttatgggctc cgatcacaag 300  
attctaattgc tcgtgacatg gcagttgctg cgaggggaaag ttccagaaag cttcaggcct 360  
tatcttcgga agacaggaaa aaaattctgc ttgatattgc cgatgccctt gaagcaaattg 420  
ttactacaat caaaagctga gaatgagtta gatgtagctt cgccanagcg gttgaaatca 480  
tgggtgctccc taatttgaca cctggaaaga tttcaacctt gcaacntcan tttcgtaanc 540  
caacctgata tggaagattc aaatcggncg tttttttaa gaaaaccana nggtggcaaa 600  
atgggnccctg tc 612

<210> 3884

<211> 606

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-069-Q1-E1-B1

<400> 3884

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cccacttcct tcttcagatg taagcaatgt tgtctagagt cctcctctga ttcagatttc 180  
gttgctgaat cttttgtaa actctgttct ttgtatgtcg agaagccaaa ttcagggaat 240  
ttagggtttt acaaaaaaat aaaaaagagt ttcttttttt ggatgatgga atcgaattac 300  
tcagggtgtg tcaacggcta cgatgtgagt ttcttaccaa cttcgattcc ggatcttgga 360  
ttcgggtgttc cttcttctag tgattttgat cttcggatgg atcaatacta tcaccaacct 420  
tcgagtgggt caataagtta cactttctca caantgatga nattgatccg aaaacaccct 480

tttgaaaaan ttaaacaagc tcccttaagg gaangaaaat cccccctgaa naagcaattc 540  
 aaacctccaa gnaatncctt tgggnccctt cgaanaaaan ccnangggaa aatgtttcaa 600  
 ccaagt 606

<210> 3885  
 <211> 389  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-068-Q1-E1-F2  
 <400> 3885

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 gggaggatcc caangacgaa gatagtttgc acattacgac cagcttctcn cactgtttcc 180  
 atgatcgaaa agcttttgaa agccggtant aatgtggntc ncttcaactt ctcacatngn 240  
 agccatgaat accatcaaga gacactcgac aacctccgct ctgctatgca taataccggc 300  
 attcncgctg ctgtcatgct tgatactnan gggcctgana ttcgtactgg tttcttgaaa 360  
 gatgggaacc ctatgaactg aangaagtc 389

<210> 3886  
 <211> 398  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-068-Q1-E1-F3  
 <400> 3886

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 cgcgngagct ttttacacga atcttgctgc acgtgtgaga ganaacagag gaacaccgaa 180  
 ganacctgga agaggagtgg caacgtattt gttcgccang tttgatgaga atcaaaagag 240  
 tcctgagatc nagaagaatt ttggcttgnt ttttcnaat acacaaccaa aatttccgat 300  
 cacattctct gccgcnacag acggtacngg ggttgaatna tcattttana ttctnagatt 360

tatgtgaata aatgggagat tatcccagnc aagggttc

398

<210> 3887

<211> 407

<212> DNA

<213> Arabidopsis thaliana

<223> Clone ID: LIB22-068-Q1-E1-F5

<400> 3887

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gcttagcaag aacaacaagg atcgaatcaa cacttcttca gctttcaatt ctttcaagaa 180  
caattatctc cttgtctatt cgctcatgat ggcgggtgat tggttgcagg gtccatatgt 240  
gtactatctt tatagtactt atggatttgg taaaggggac attggacagc ttttcattgc 300  
tggtttgggt tcctctatgt tggttggtac catcgttggg tctctagccg acaaacaggg 360  
tcgtaagagg gcatgtgtta cctattgtat tacctatata ttgagct 407

<210> 3888

<211> 452

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-068-Q1-E1-F6

<400> 3888

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ctgctcgttc ccgtggaggg gaaattggag tgattgcaaa gatcgagagt atcgattcac 180  
tgaccaatth ggaagaaatt attctagcat cagatggggc catggttgca agaggagatc 240  
tgggagctca gatactctt gagcaagttc cagcagctca acagagaatc gtccaagtat 300  
gcagagctct taacaaaccc gtcattgtcg cttcacagct attggagtcc atgattgagt 360  
acccaactcc aaccaagagc agaagttgcc gacgtgtctg aagcagtaag acaaagatca 420  
agatgcattg atgctctctg gagaatcagc ta 452

<210> 3889  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-068-Q1-E1-G1  
  
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 acnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
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 ggaaatctca gcgtaagaac gcgacaatgt ttgatagtga tgatgataca agtagtgtaa 360  
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<210> 3890  
 <211> 122  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-068-Q1-E1-G11  
  
 <400> 3890  
  
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 gg 122

<210> 3891  
 <211> 411  
 <212> DNA  
 <213> Arabidopsis thaliana  
  
 <223> unsure at all n locations  
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 <400> 3891  
  
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aagcagtgga taccgaaaga gtcaagtggg tcagtcacag atgcagtata ttcattgat 180  
agccagtcaa tctatgcagc ctttgatgat ggaagtgtga gtatcttgac ggcaacaaca 240  
ttgcaactga agtgccgcat tggccccaat tcatatttgc cttcagaccc gagctcgaga 300  
gtatatccag ccacagttgc agcacatccg tctgaaccaa accagtttgc agttggacta 360  
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<210> 3892  
<211> 412  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-068-Q1-E1-G9

<400> 3892

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actctcatgg aggtctagct ctggcctctc tgatggtctca tctgctcacg tggacttgac 180  
cggagggtac tatgatgctg gggacaatgt gaagttcaat ttcccgatgg cgttcaccac 240  
aaccatgctt tcttgagct ctttgagta cggtagaag atgggacccg agctccagaa 300  
actcccggtg ggccatccgt tgggccacgg gattatctac tgaaatgtgc cangggctac 360  
accanggaag ctttacnttg gatangaga tctaattggt gaccacaagt gc 412

<210> 3893  
<211> 460  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-068-Q1-E1-H2

<400> 3893

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aatcacaagc caagtgagaa aaagaannnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnntggtct tatgatctca tcaaacggag 240  
ctttaatcga acaacaacca tcagtcgttg tgaagaaacc accggcgaaa gatcgacata 300  
gcaaagtcga tggaagaggg agaagaatcc gtatgccgat tatatgtgct gctcgtgttt 360  
ttcagctaac gagagagctt ggtcataagt cagatggcca aacaattgaa tggttacttc 420  
gtcaagcaga gccttctatt atagctgcaa caggaactgg 460

<210> 3894  
<211> 410  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-068-Q1-E1-H6

<400> 3894

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agacttacc aaagcactaa caccaaactc ccttccgtaa accagcccta ccggaccggt 180  
ttccatttcc aaccccccaa aaattggatg aacgatccta atgggcctat gatatacaaa 240  
ggaatatatc atcttttcta ccaatggaac ccgaaaggag ccgtgtgggg taacatcgtg 300  
tggtgtcatt ccacgtcaac agacttaatc aattgggatc cacatcctcc agctatcttc 360  
ccatctgcac ccttcgatat caacgggatg ctggtccggt tcagctacta 410

<210> 3895  
<211> 411  
<212> DNA  
<213> Arabidopsis thaliana

<223> Clone ID: LIB22-068-Q1-E1-H9

<400> 3895

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cacctccgga agtttacttt caatgatctt aagctatcta ctagaaattt cagacccgag 120  
agtcttcttg gagaaggtag ttttggttgt gtctttaaag gatggatcga agaaaacggt 180  
actgctcctg ttaaacctgg tactggtctt acggttgcag tcaaacctt aaatcctgat 240  
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ccaaatctag ttaagcttgt tggttattgc attgaagatg atcaaagggt gcttgtgtat 360  
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<210> 3896  
<211> 624  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-069-Q1-E1-A1

<400> 3896

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ccaataaaaa aaaacttcag tctgtttgac attttgtcga acacttggac ggcattcaca 180  
aaagctctaa actttctgac taccaatggc ggattcgtct tccgacaagg agaagaagga 240  
aaataataag cagcccggtg atcgtggagt ccgtatgagg agctggggaa aatgggtatc 300  
ggagattcgc gaaccgagga agaaatcgag aatctggctc gggacttttc cgacggcgga 360  
gatggctatg cgtgctcag acgtggcggc tatgagtatc aaaggaactt cagccattct 420  
caatttcctt gagctctcta aacttcttcc ccgaccttcg ccantcttga ctcaaactgc 480  
gggacaaact gctcccaatg gacttcgata cgaanggggt tccgttcnga tactgagaac 540  
tancgaaacg acgacgtcna aataaaatgt cagagagtta ntgangaagt taacnaaacg 600  
gtgtcgttcc caaccgtccg tcct 624

<210> 3897  
<211> 605  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-069-Q1-E1-A2

<400> 3897

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gtanaaact caatgggcta ggggtggccc atttcgcctt accaacccca gggaaactcc 120  
gaatacaggc cgttctcgtt tgtacatnac agacttttgg ggtgcctaag atccaaagtc 180



gatagggaaa cagcccagat cntacgctaa ggccctaag caatcactta ctggaaangg 240  
aagtgatcga gcgatgacaa ccaggaggtg ggcttgggnag cagccatcct ttgaagaaag 300  
cgtantant cantggtcta gctccatggc accgaaaatg tatcanggct cangtgattc 360  
accgaagcga cgaagacctt gaaagctgct ttttcaagtg tcagtancgg aacgttctgt 420  
caatcgggga aagtttttgg tgacaagacc tggngatatc agantgtaag cgcataattac 480  
ataatcctgt gaaaaaagat nctgcantg gnaaggnttc cgcgttnatc aatcctacnc 540  
aaaattgaat cgggtccctt aaaggaaccc ccgaaaaggg cttgccgttc ccaatgggggt 600  
tacac 605

<210> 3898  
<211> 453  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-068-Q1-E1-E9

<400> 3898  
gtaanggtca agaattcccg gncgaccca cgcgtccgga agaaacagag gtcctaaaaa 60  
aatgatgatg gagactagag atccagctat taagcttttc ggtatgaaaa tcccttttcc 120  
gtcggttttt gaatcggcag ttacggtgga ggatgacgaa gaagatgact ggagcggcgg 180  
agatgacaaa tcaccagaga aggtaactcc agagttatca gataagaaca acaacaactg 240  
taacgacaac agttttaaca attcgaaacc cgaaaccttg gacaaagagg aagcgacatc 300  
aactgatcag atagagagta gtgacacgcc tgaggataat cagcagacga cacctgatgg 360  
taaaacccta aagaaaccga ctaagattct accgtgtccg agatgcaaaa gcatggagac 420  
caagttctgt tattacaaca actacaacat taa 453

<210> 3899  
<211> 515  
<212> DNA  
<213> Arabidopsis thaliana

<223> unsure at all n locations  
<223> Clone ID: LIB22-069-Q1-E1-A3

<400> 3899

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ccctgagggga agtggttaaag tcaactggaa aggagttgct tattacaata gattgattga 120  
ttacatggtt caaaaaggga ttacacctta tgctaacttg taccactacg atcttccatt 180  
ggctttggaa aacaagtata aaggcttgct tggtagacaa gtagtgaaag attttgcgga 240  
ttacgctgag ttttgttaca agacatttgg tgatagagtg aaaaattgga tgacgttcaa 300  
cgagccgcgt gtggttaagct gctttaggtt atgataatgg tattttcgca ccgggtagat 360  
gctcaaaagc atttggaaat ttgcactgaa ggaaactccg cgacagngcc tcatantacc 420  
acactacttg gccaccacac atccaaagat accccaattt tacaancgaa acaaggggaa 480  
aantttgna annttttaaa tttcctttgg gaaan 515

<210> 3900  
<211> 449  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-068-Q1-E1-B5  
<400> 3900

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gaaaaaccca tttctcnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
nnnnnnnnnn ggtgtggatt tgaggcaagt ggtggctgga atactcacca ttaccatggt 180  
tgtgatgctt ggacaaatgc ttcatagaga ttactttgat gctgttcagg anaaagttca 240  
nggagatgca catgatattg aattccatgg atcaaaagta gctgttgaan atggacttgt 300  
tagagccttt gaggctggga ctaaagggcc ttggatggaa gatagtcatg aactcaaacc 360  
ttgttggatc atttctcaat ctgatgaagc ggtatcgtca aaggggtacn ttacnattcg 420  
ccttaacaaa tnggtccctg aactacaat 449

<210> 3901  
<211> 456  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-068-Q1-E1-B9

<400> 3901

cccggaaggt cagaaattcc cgggncgacc cacgcgtccn aaaaagcgnn nnnnnnnnnn 60

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn ntcgaggaga aaaaagaaaa 120

attggagaaa taatttaact ggttctcgga gaatctaggg ttcttttttag ccacgccttg 180

ctgatctcct tcgtgaattc gattccgatt ctcacctggg cttttgtggc ctaaagctca 240

taagtttatg ctagtgaag aagttatata ggaatgacat attagattta caatgatgga 300

agtgggggttc tctcttattc agtggttgat caagttctgg tgctgacagt ccgtttatat 360

ttggatggct tgtaactgga tctgttgccc ttctggctgt tatctacaca tttcttaaat 420

ggcaagaaaa aaacttcttt aaattgggtt aaagct 456

<210> 3902

<211> 406

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-068-Q1-E1-C1

<400> 3902

angcgtccgc ccacgcgtcc gcaaaaatta naaaccatgg cattgcaaaa gttccctctc 60

ctgggggttc tttttctcat aagcattgtc gtctcttcga caanancgt cnatgatccn 120

gtgtgccccaa cgacgtccaa actaagccga gcaagtttcc ctaatgggtt tgtgtttggc 180

acagctactg ctgcgtttca ggttgaangt gcaattaatg aaacttgtcg tggacctgct 240

ctangggata tcttctgtaa gagaaatcca nanagatgta gtggccacaa cgccnatgtg 300

gccgttgatt tcttccatcg ttataaggaa gatattcanc taatgaagaa tctanacaca 360

agacgcattc agactcccaa tccgcaaggt caagaatatt tccnca 406

<210> 3903

<211> 453

<212> DNA

<213> Arabidopsis thaliana

<223> unsure at all n locations

<223> Clone ID: LIB22-068-Q1-E1-C11

<400> 3903

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aaatttttagc ttagaacaca gaagaagcat tttttcgnnn nnnnnnnnnn nnnnnnnnnn 120  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnng gatagtggaa gcttcccatt tgtaggagct 240  
ctgcattcaa aatcacgttc gtctcctctg ttatcagttt gccttggtct cgtgggagca 300  
tgccttctca ttggttatgc ttacagtggc ccaggtatgt tcaaaagtat cagagaagtc 360  
agcaagatta caggtgacta ttcttgaca gcagaagttc aaagagccat tcctattctt 420  
aagagtgcgt atgggagata gcatgcgcaa agt 453

<210> 3904  
<211> 409  
<212> DNA  
<213> Arabidopsis thaliana  
<223> Clone ID: LIB22-068-Q1-E1-C12  
<400> 3904

acgcgtccgg ttcagttcca tgccttagct ttgctccatc agatacgcca aaatgatcgc 60  
ttggctgtta gcaaattggc ttgtagcttg accaggggat ctgtccgctc tcccttggct 120  
cagtgtcttt tgatacgta caccagccag gttatccgtg acatggccaa ccacggtcaa 180  
tctggagaac gtccgttcta tgaatttttg gagagttgcc tgcgccataa ggcagaaatg 240  
gtgatccttg aggctgccag ggcaattact gagcttgatg gtgtgacaag ccgaagaact 300  
gactccagca atcactgttc ttcagctctt tttgagttcc cccagaccag tgttgagatt 360  
tgccgctgtc cggactctga acaaggttgc aatgactcat cctatggct 409

<210> 3905  
<211> 412  
<212> DNA  
<213> Arabidopsis thaliana  
<223> unsure at all n locations  
<223> Clone ID: LIB22-068-Q1-E1-C3  
<400> 3905

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atccggatcg ggttttatct ccgacgagct cgaaatcagt gacgcagacg gtgaacgggt 120  
 cgcattcaatt cgtgattcaa ggatacagct tagcgaaagg gatgggtata gggaagcaca 180  
 tagcgagtga taattttctcc gtcggaggtt atcagtgggg gatcttcttc taccgggacg 240  
 gtaagaatcc ggaggataat tcgtcgtacg tctctgtttt tancgcattg gccantgaag 300  
 gaaccgaagt tagggcgctt ttcgagctan ctcttggtga ccaaagtgga aaggggaaac 360  
 ataaggttca taaccatttt gaacggtcac tccaaggggg gccctaaaaa ac 412

<210> 3906  
 <211> 408  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-068-Q1-E1-C7

<400> 3906

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 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnngaa cgatatagta 120  
 cctgaaccct agcggaggaa aatcaaaaat tgtctaggag aaacaaacag agatatcttt 180  
 ctttcttttt atcagtgggg aaaaaaatg cagaatccga gactgannnn nnnnnnnnnn 240  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn ctctctttac 300  
 catcctggtg ttttggtctc tcctcagtta gagcctgttc caagtggaaa ccttctctct 360  
 ggttttgatc ccaagtactt gccgtagcgt gtatgttga aacatcca 408

<210> 3907  
 <211> 414  
 <212> DNA  
 <213> Arabidopsis thaliana

<223> unsure at all n locations  
 <223> Clone ID: LIB22-068-Q1-E1-D1

<400> 3907

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 ccgacgtcac tctccggtgg cttccatata tttctccctt aagcaaccac caccgcaacc 120  
 accaagaacc tcctgagagt cctcctgacc tccgccgccc ggagaaatct attggnnnnn 180

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnntaa aacccctctt aagattaatc 240  
 cactcaaggg tttaaccaat cgctcttctg tgtctcctct tgttcaatca gaggtttcga 300  
 gtaaagtttc ttcttttggc tcctctctag catccaagct acgtttgtcc agcaagnnnn 360  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nngttgaaga aaccaaccaa ttcc 414

<210> 3908  
 <211> 423  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> Clone ID: LIB22-068-Q1-E1-D11  
 <400> 3908

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 aaatggatgt gtgccaatgt atgctcagat caaagctgga gaactcattg agcaaccaat 120  
 ctggaaaact gcagagctca taaaacagag caaatccaat acgagtgatg aatatgtacg 180  
 ctcttttata gacttccaag agctgcatca caaagatgga atcaatgccg gtacaggagt 240  
 gaccggattc acggactggc gatacttggg gcattccacg attgattttg gatggggagg 300  
 acctgtgacg gttttgccac tatcaaaciaa gttgcttgga agcatggaac catgtttttt 360  
 cttgccatat tctactgatg ctgcagctgg aagcaagaaa gacagtgggt ttaagggttt 420  
 ggg 423

<210> 3909  
 <211> 410  
 <212> DNA  
 <213> Arabidopsis thaliana  
 <223> unsure at all n locations  
 <223> Clone ID: LIB22-068-Q1-E1-D12  
 <400> 3909

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 ggctaatacg acgaagccaa ggagcagatt ggagagagca ctaagaaaga agccgaggac 120  
 gaagatgaat ctgaagaatc ttcttcaaga ttcgggttta ggaagtcttt gcgcagcaaa 180  
 gtggaaggcg ccatcgagtc tcgagggttt cacattggag ggaacaagaa ggatgaagat 240  
 gaggcggaag aaatcgagac taaggagatt gagcttgaag acggagaaac gatccatgcc 300